

PRESIDIO RAB MEETING - JANUARY 11, 2000

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GOLDEN GATE CLUB, PRESIDIO

PRESIDIO RESTORATION ADVISORY BOARD MEETING

TUESDAY, JANUARY 11, 2000

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Tuesday, January 11, 2000 7:02 p.m.

MR. KERN: Good evening. This is the regularly scheduled Presidio Advisory Board.

Welcome to everyone tonight, the community members, members of the Trust, Park Service and the regulatory agencies and particularly members of the public who are joining us tonight. Thanks for coming out tonight.

I would like to see if everyone has an agenda tonight. Are there any changes or modifications?

AUDIENCE: (No response).

MR. KERN: Okay. Seeing none.

We have several important votes tonight. One is on a new member who has come before the RAB a couple of times.

I understand that she is sick tonight. So, she won't be here. We don't yet have a quorum. So, I will have to sort of do a dance and stall for a little bit on that.

The next item will be 4-A and a discussion vote on the Charter. We don't have a quorum for that item yet. So, we are going to have to continue dancing until we have a quorum.

So, that brings us to item 4-B and Ina and the community relations update. Thank you.

MS. SHLEZ: A couple of things tonight.

First of all, the community working groups had requested several pieces of information from us, from the EKI

document, and eighty percent is -- almost all of that out to you each individually.

The one thing that I wasn't able to send out to you at that time were these very large maps simply because it took a while to get them printed out and you will see that what these are, when I hand them out, that they are maps that are very similar to the conditions of environment -- sorry, summary of the environmental conditions map that you will see in the full EKI document but there are some -- actually some other information on here that I think you will find useful and they have some dates on here in terms of the construction start times at all of these sites as well as giving you a better sense of in some cases how big the site is.

So, I think you will find these maps are actually a bit of improvement over the map in the EKI the document.

So, they are kind of large and what I would like to do maybe is place them on a chair back here so that you can take them on your way out.

So, they are a little unwieldy. So, that's that.

MR. BERMAN: Do they have the building numbers on them?

MS. SHLEZ: I believe they do.

I believe they have almost all of the same information, probably more information than the EKI map.

As I mentioned, they also have a color coding on

here giving you an idea of what some of the issues are at each of those sites.

I think you will find these maps really useful. So, that's that.

The other thing I wanted to announce is that we are currently at the printers with our first issue of the newsletter.

As it always happens when you start a project like this you sort of have a few little wrinkles in between that you need to iron out and we are kind of finished doing a lot of those and it is at the printers now and it will be mailed out next week.

So, I want to congratulate all of you for that effort as well because Doug and Julie Cheever also contributed articles to the newsletter which was great.

So, those are in there and I hope that you will find things that are useful.

The other thing is we are working right now on getting the newsletter into an electronic format that we can then send them out through e-mail or make it available on our website for folks to download. So, I think that will really help a lot with distribution.

One thing I did want to let you know about is part of the newsletter you will get, there is an insert page in there and the page is the mail-back form.

We have inherited the Army's database which is what we are using for our initial outreach effort and that database we realize is probably fairly outdated in terms of people's interest in what's going on out here and also, you know, people move; people change jobs.

So, we are probably going to be getting a few of those things back but the idea is to pare down the list of the folks that are really interested in receiving these letters.

There is about almost three thousand names on that data base. So, it will really help to pare it back to the folks who are really interested, lower costs and basically make it more targeted to folks that are really specifically interested in the environmental issues out here.

So, that's kind of where we are at with that. I wanted to thank all very much for your surveys which almost every RAB member returned to me which is really nice.

I've summarized those and the summary will be part of the community relations plan. We are still working on that and I'm trying to think if there is anything else.

One other thing that's not really a community relations issue but I wanted to bring it to your attention. It is a way for the RAB to get even more involved in the meetings between the Trust, the Park Service, and the regulators.

Our first of the series of meetings -- bi-monthly meetings is with the Trust, the Park Service, the regulatory agency, and any RAB member who would like to attend will be held on January 27th, from 10:00 o'clock a.m. to 1:00 p.m. at the Trust in Building 1750 in the same conference room where the committee meetings are every month.

So, what I will do is I'll post a reminder about the meeting through the e-mail and I'll probably also send a fax about it just to remind folks when and where it is but I wanted to give you a little bit of an advance notice a few weeks off.

Hopefully, you can all come out and join us for that.

As I said, those are basically bi-monthly status meetings just to update and make sure everybody knows what kind of projects are coming up, what's going on right now, those kinds of things.

So, hopefully, you can join us for that and, again, as always, if you guys have any questions or if there is anything I can provide, please let me know.

Did I stall enough? (Laughter).

MR. KERN: You did actually stall for three committee members.

MS. SHLEZ: Very good.

MR. KERN: So, we are going to turn it over to

Chris since we have a quorum now for the all important real activities and project updates.

MR. NELSON: Okay.

I'll start out with the feasibility study. Many of you probably have heard in the last meeting that we had reached a single firm with EKI relating to costs and we are currently waiting to sign the contract with EKI; should be done by this week.

So, hopefully, we anticipate being able to bring EKI to either the next meeting or the one in March or perhaps the committee meeting later this month -- later next month, sorry, and that really depends on the status of the work plan which is going to be our first task. So, stay tuned for more updates on that.

There hasn't been a lot of field activity. One of the things that recently occurred is in November there was a discovery of some petroleum around the southwest portion in the tidal marsh.

It was discovered by someone from the Golden Gate National Park Association, and the Trust went out and investigated this and, following three rounds of water sampling at the seeps, we determined that the water is probably ground water poking out, shallow ground water poking out, and it contains low levels of gasoline and some of the -- of BTEX in volumes gas, all below the action levels for

the wetlands there.

Also, the Trust has met with the regulatory agencies in December and proposed an investigation program and, as of today, we began our first of two days of direct push ground water sampling along the area where the seeps were found and we anticipate that will be done by tomorrow afternoon.

The next phase will be essentially once we find out what all the results are of all the investigations, we will be able to discuss it with the Regional Water Board, the DTSC and the Park Service what the next plan of action will be and we will also be discussing with the Park Service some of the issues associated with the archeological study when they are done.

Once that is completed, we will send out a letter report and everybody will be able to get a copy of that and I should mention that when this seep was discovered, we initiated the protocols of the contingency action plan at Crissy Field which was done at many of the other sites that we found out there and I believe people have been notified about that as well.

Another field activity that was occurring largely in the Fall and was completed with a delivery report was the ground water monitoring for the three decision document sites: The DEH site, the Landfill 8 site and the Building

900 series site at Crissy Field.

Montgomery Watson did that for us and we have sent out a copy of the reports to the appropriate recipients and there are some copies in our library and my review of that -- of those reports is that there is nothing alarming.

It will be fairly standard concentrations as they have found in the past.

In addition to ground water monitoring at those three sites, we have actually gone to Montgomery Watson and told them to work one more time and do the sampling again of three sites which they just started yesterday and along the lines of some contracting activity, we have actually announced that, in the Commerce Business Daily, that we are going to be putting out a request for proposals to conduct a yearly report of the monitoring at all of the restoration sites.

So, that will be upcoming as well. Since the holidays were a little slow, we got a lot of work done in terms of getting contracting documents out. It is a really good time, actually.

We have also put together a preliminary request for qualifications for architectural engineers' services contract.

We will be issuing this in a few months probably, hopefully, by the end of January, early February, and that

will basically cover a lot of the restoration work on the other site besides the main installation sites that are going to be going through the feasibility study work.

We anticipate to award three monitoring contracts, each with a base year and potentially up to four option years and then, under that process, the firms will have to compete for task orders by the proposals.

What else is going on? We have also done some tank removals. We did a tank removal -- underground storage tank removal at Building 38 which is in the Main Post area.

We had a contractor remove a ten thousand gallon oil tank in late November. They completed their excavations and back-filling by early December.

We did not find any ground water or soil contamination associated with that tank, and the report will be sent to the City of San Francisco, Department of Public Health, advising no further action and at that time the report will also be issued to the RAB.

And then the last thing that we have going on is additional tank removals inside buildings in the Portola neighborhood. Here it is, sorry.

There are six units that have recently been vacated by people in the Portola inner area, and we have awarded a contract to remove the six underground tanks which are inside the basements of those buildings to L&W Environmental

Services in San Francisco.

The work began today and the tanks have all been unearthed and I imagine that the work shall be done by the end of this week, barring any unforeseen circumstances.

So, that pretty much wraps up what we have been working on. Question?

MR. MILLER: Are these tanks that are removed as part of the tank program or is it areas that haven't yet been identified?

MR. NELSON: No. As far as I know, they have already been identified.

MR. KERN: Are there any questions for Chris? Sam?

MR. BERMAN: Could you give us an idea of what the levels of petroleum and other organic materials that you found in the seep that you sampled?

MR. NELSON: We don't have the results yet.

MS. REACKHOF: Sam, some of the earlier seep samples we do have some results and, unfortunately, I didn't bring them with us.

All of them are below action levels. I think the closest....

MR. NELSON: The actual level for gasoline is twelve hundred parts per billion, I believe. Yeah, the highest was eleven hundred.

MS. REACKHOF: And the rest were like at ninety and one was like I think thirty and there was two others I can't remember off the top of my head.

There were some more samples and, two of them lower actually moved to the east of the original area to see what we had and, actually found that it was pretty low.

So, we are zoning in on the area with seep samplings but we are still continuing. I think we will probably find the true data by coming back with a hydro-punch which will be done today and tomorrow.

MR. BERMAN: So, it was only the gasoline that was up near the action limit.

So, do you have a suspicion of what's the origin of this?

MS. REACKHOF: Potentially, the Commissary where they had left some tanks that I believe were removed by the Army.

MR. ULLENSVANG: Some tanks and motor pool operations were done at the Commissary.

MR. BERMAN: So, then the Commissary just built over these tanks without hurting the --

MR. ULLENSVANG: The two tanks that Sharron referred to it appears were removed but it is hard to say what might also be there. It is still very early in the process.

MR. BERMAN: So, did I understand that the proposed action plan is to find the origin of this and then to decide after you find it what to do? Or have you decided more or less not to do anything?

MR. NELSON: We have to evaluate the data before we can make a decision but, eventually, the source identification will be the goal, yes.

MR. BERMAN: But it's under the Commissary.

MR. NELSON: Yeah, it's under the Commissary.

There probably will be some interim measures that we can do. For instance, we could inject some oxygen release compound down along the edge of the marsh to capture any contamination that comes in that direction.

If we can find some hot spots up towards the parking lot on the Commissary, we might be able to do some soil removal, some sort of earth removal action there.

Those are some of the things that are sort of being tossed around as ideas. Once we find out the results of the site water samples, we should be more indicative of what is there.

MR. BERMAN: Okay.

MR. KERN: Any questions from any others?

AUDIENCE: (No response).

MR. KERN: Thanks, Chris.

I think you added just enough. I think we have

enough participants. Excellent.

Okay, back to I guess 3-A and I think I will turn it over to Jan for the membership committee.

MS. MONAGHAN: The membership committee would like to recommend Kathryn Hyde for a community member position on the RAB.

~~She~~ Kathryn has an extensive background in waste management, especially recycling. In real life, she is the recycling coordinator for UCSF.

She has been with the Northern California Recycling Association. She also served on the San Francisco Hazardous Material Advisory Community Forum, and we think Kathryn will fill an important knowledge gap in the RAB and be an active participant in the RAB and the Tennessee Hollow Working Group.

I would like you to ask you to vote for her membership application.

MR. KERN: Do I hear a motion?

MR. HULTGREN: I'll move.

MS. WINSHIP: Seconded.

MR. KERN: Is there any discussion?

AUDIENCE: (No response).

MR. KERN: All in favor say aye.

AUDIENCE: (Responds).

MR. KERN: Opposed?

AUDIENCE: (No audible response).

MR. KERN: Motion carried. Thank you, Jan.

And we have a process of notifying Kathryn?

MS. MONAGHAN: Yes.

MS. SHLEZ: I will give her a call tomorrow.

MR. KERN: Thank you.

We have added to our quorum significantly now. The next item is Item 4-A, RAB Bylaws and Charter. I will turn that over to Julian.

MR. HULTGREN: Do we have the latest copy of the proposed Charter and bylaws? I guess I should give you a little update.

At the last meeting, the then draft of the Charter bylaws were distributed to everyone, I believe.

The changes since then are basically these. The changes since December are basically these, and I think an e-mail was sent out detailing the major changes on the -- I don't know the page numbers anymore, but let's see.

I think it is on Page... Yeah, Page 6, I think. I'm looking for the member increases.

I don't know, yeah. Look on Page 4 at the bottom, Arabic number one, "Community Members", and turn over to the next page and I think from line ... starting line 2 the sentence starts "there should be a minimum of twenty".

From there on, there was a change and the basic

change was that the membership can be increased to about thirty.

The procedure for increasing the membership was changed slightly. Previously, it required the vote by the membership committee to change this to require a recommendation by the membership committee and then a vote by the RAB members as a whole.

The second change of some import is -- I believe it is the conflict of interest which is on Page 6.

At the bottom of the page, line 50, I can't really describe the change there except we were trying to, I think, perhaps clean it up some and also tighten it up some.

My recollection is that we made specific requirement that anyone who feels they have a conflict of interest is to report it to the RAB and, by that, we mean to the membership.

Probably -- we don't specify the method for reporting but I think probably the most expedient is just to announce it at the meeting when the conflict arises.

We purposefully did not try to describe any member because we felt it would be just as -- defective.

Then the other change was leaves of absence which is on Page 7, starting at line 7, and that whole section was reworded.

Let's see if I can remember what we did there. We

left more or less an absolute right for members to have a ninety-day leave of absence every two years by merely reporting or requesting it in writing or notifying the membership committee.

For any leave longer than ninety days with any additional reason, we prescribed a procedure which essentially has to be requested in writing.

It is then taken up by the membership committee which would then recommend to either approving or disapproving. If they recommend disapproving, that would be the end of it.

If they recommend approving it, it then goes to the whole RAB to be voted upon.

The other part of the issue is that if -- if anyone is granted a leave of absence, that they are -- they are not counted in obtaining a quorum for a meeting.

In other words, it is as though they have become inactive and the quorum and the voting requirements would be applied as though no recommendation was taken and if they -- finally, if they request and receive a leave of more than ninety days, they are entitled to come back but -- when they are six months or a year or whatever has run, but only if there is any vacancy for a committee member on the RAB.

So, if the membership is made up of twenty and when someone comes back from their leave and there are twenty

people serving and there is no vacancy and that person takes that chance and is not able to at that time to at least rejoin the RAB.

I suppose that person could apply again and probably would be looked at very favorably by the new membership at RAB but they don't start back.

Those are the range of changes. The only others were some changes that came up I think this afternoon and they are very minor.

If you look on the ... I believe if you -- yeah, on the front page, the title, City of San Francisco Restoration Advisory Board, the words "amended and restated" have been added which was an issue raised by the Trust and I think wisely raised because that is really only good.

We are amending -- we are restating the Charter and Bylaws.

Then I think on -- if somebody can show me what page because I can't remember. Oh, it is Page 1. If we look at line 24, it starts: "Therefore, the Restoration Advisory Board is amending the Charter and Bylaws."

The only change there is these words I believe which were added: "... by adopting these amended and Restated Charter and Bylaws (hereafter the 'Charter and Bylaws')".

That's the only change which, again, makes it clear

that they are amending and restating the Charter and Bylaws.

So, those are the changes from what I think everyone had before and, if a motion would be in order, if they did them before, I would move that the amended and restated Charter and Bylaws be approved and, in connection with that, I also make a motion -- move that if they are approved and upon becoming effective then, that the old Charter and Bylaws be -- have no effect and be replaced in their entirety with the new Charter and Bylaws.

MR. KERN: It has been moved and seconded that we adopt these new or amended and restated Charter and Bylaws.

Is there any discussion?

MR. MILLER: A question of the Board members be given an example of the twenty members leave one and come back, but the Bylaws state that there is a minimum of twenty and a maximum of thirty.

That means, I would think that if there were less than thirty, there will be a space.

MR. HULTGREN: I misspoke. You are right.

My example should have been that if there are thirty members and someone wants to come back, you are right, it is a joining member, thirty maximum.

MR. KERN: Other discussion?

MR. BERMAN: Presumably, the members of the RAB

that are from the agencies, including the Trust, have all read this material and agree with some of the statements. For example, one that particularly caught my eye in reading and appears as No. 8 on Page 10, which is in the new handout.

MS. REACKHOF: Everyone agrees with that.

MR. BERMAN: Okay.

MR. KERN: In fact, this vote is for all of the members, not just the committee members. So, we anticipate a vote by the agency members as well.

Any other discussion or questions?

AUDIENCE: (No response).

MR. KERN: Good. Then without further ado, all in favor signify by saying "aye".

AUDIENCE: (Responds).

MR. KERN: Opposed?

AUDIENCE: (No audible response).

MR. KERN: We have some new -- it carries and we have new Charter and Bylaws

(Applause]

MR. HULTGREN: I think the old Charter governs when this becomes effective and the old Charter says that if any amendments become effective when the minutes of this meeting are approved for the next meeting.

MR. KERN: I see.

MR. HULTGREN: Officially, thirty days.

MR. KERN: Since we don't actually have the minutes.

MR. HULTGREN: I think then you just -- it becomes effective when the next meeting is commenced.

MR. KERN: Okay. Great.

I would very much like to publicly commend Julian and his fine leadership in getting this significant piece of work done.

That was really a significant effort by Julian and his committee. So, thank you very much.

MR. HULTGREN: I want to thank the committee for their diligent working efforts on that.

MR. KERN: Also many thanks to the Trust.

MR. LOLLI: You did a good job.

MR. HULTGREN: Thank you.

MR. KERN: Thanks to the Trust and the Park Service, agency members for your contributions which were significant and improved the document very much.

So, thank you. We have achieved that and we have got signatures, perhaps, from the co-chairs and the -- perhaps we should point out a new signature page and get that for the full and authenticated copy.

Very good. Is there any new business? Moving on to Item 5.

MR. YOUNGKIN: The regular monthly planning

committee meeting is on January 25th, 7:00 o'clock p.m., at Building 1750.

All RAB members are invited to attend. Thank you.

MR. KERN: Any other new business or announcements?

AUDIENCE: (No response).

MR. KERN: Let's see, do we have any extra --

MS. CHEEVER: Actually, some of us came in late.

I'm sure we all apologize for our own individual reasons but were there any announcements before we came in?

Is it possible for you to repeat it? Because there may be as many as four or five of us who didn't hear it.

MS. SHLEZ: Sure. I will hit a couple of the highlights.

The first issue of the Presidio Cleanup News, the newsletter that we are starting, is at the printers right now.

We are expecting it to go to the mail house early next week and, hopefully, it will be in your mail boxes by the end of next week and I thank you, Julie and Doug for your contributions to that. It will really help to improve the newsletter.

And we are also going to be making it available electronically so that you can e-mail it to all of your friends or be able to download it from the internet and,

hopefully, that will help the distribution of that.

The other main thing I wanted to let folks know about is just two things.

I announced the first of the bi-monthly status meetings between the Presidio Trust, the Park Service, our regulatory agency representative and, of course, any of member of the RAB who would like to attend will be on January 27th and it will be from 10:00 to 1:00 and it will be at Building 1750 where the regular committee meetings are. So, we hope that you can make it.

But, basically, the idea behind the status meeting is just to give an update and make sure that everybody knows what projects are coming up and is a way to touch base between all of the regular members and it kind of takes place of what the old RPM meetings used to be.

So, I hope you can join us and the other thing that I made an announcement about is the availability of these maps which are a little bit of an improved version of the summary of environmental conditions maps that were in the EKI document.

So, we have printed out quite a few of these and I will leave them in the back so you can pick them up on your way out and, hopefully, be able to fold them out, however you think would fit in best.

So, that was it.

MR. KERN: Do any of the working groups have any further sort of requirements to meet?

We have kind of been through one round of meeting and I'm anticipating it might be good to go through another such round if the group members would like to bring up some questions of that sort and so, I guess it is sort of an announcement, you know, when the time comes between Mark and myself and organize when you would like to have such a meeting if you feel whoever needs it.

I'm anticipating that given Chris' report tonight regarding EKI that they are beginning to work on probably will have to come up with a work plan. They are going to be getting ready to dig into this the FS RAP process.

So, our working groups will be really great for us to be right on top of this with questions and positions for all the different sites so we can at the appropriate time arrange for meetings with the Trust and Park Service folks and perhaps even the EKI people from time to time to begin that dialogue for all the various sites.

I'm anticipating that they will want to move quickly as usual. So, be ready.

Any thoughts on that process? Yes, Sam.

MR. BERMAN: Is it appropriate to bring up any issues now? Or is that something for the later meeting?

MR. KERN: Well, I think, you know, we are here

at this moment. It is kind of early in the evening.

If they are in the nature of questions that you might want a response to or just provide the questions? What were you thinking?

MR. BERMAN: Well, in our group on the Fort Scott area, we felt that there was a few bits of information that were not available in the EKI report, and so the question is would it be appropriate to bring forth some of those concerns here or at some other time?

MR. KERN: Yeah, I don't see any problem in bringing it up and getting it out there.

I'm not expecting but you might be able to respond.

MS. REACKHOF: Right.

Obviously, there is going to be a lot of questions from a lot of the work group members because I know we have already gotten some from Mark on the Fort Scott site which we have responded to.

So, rather than being caught off-guard at this time, you know, people may want to put together some questions.

We may need to be reading sixteen documents to respond to something in a much more comprehensive way. I personally would prefer that and I think we can do it in a very timely fashion.

MR. BERMAN: Fine.

MR. KERN: Okay.

Anything else on this working group?

AUDIENCE: (No response).

MR. KERN: So, if there are questions like that, that Sam is raising about information or you might begin to an assemble that. Submit it for questions.

MS. REACKHOF: Sure.

MR. KERN: Okay.

MS. SHLEZ: You can send those to me be e-mail or call me or however you want to get in touch with me.

MR. KERN: Actually, that was kind of developed this evening. Action matters have to do with the Charter at least getting signed per the page getting signed; get the working groups together, if necessary.

MR. YOUNGKIN: I think we were going to begin looking at the attendance and sending letters out to people who haven't attended in the last three months.

MS. REACKHOF: Make sure everybody signs in.

MR. KERN: Okay.

Any other agenda items that anybody can think of at the moment for next week? Peter?

MR. O'HARA: According to the issue, gas and the seeping to the wetlands area, I feel is a tragic situation, given the length of time and the amount of money and study that are being conducted on that area, and I would

like to see this issue kept on the front burner in terms of keeping this organization in front of it because I find that the -- the oversight here is unconscionable.

You have got a twenty million dollar project down there that is threatened and I don't know what increased rain fall would mean in terms of increasing it or not or whether the rain will have any effect whatsoever but you are close to the action levels and I'm absolutely appalled after having sat through these meetings for the number of years I have to find that we are at this kind of a juncture and I think that from the public oversight that this represents, the public has got a right to know what you are going to do about it or what is going to be done.

I'm not taking issue with the Trust as the bad guy here but I think that from the standpoint of the organization's response for the act, that something has to be done and I think we have a right to know on a continuing basis.

MS. REACKHOF: Can I respond?

MR. O'HARA: Sure.

MS. REACKHOF: Thank you.

I concur with you that it is a tragic situation. Hopefully, it is not going to have as much impact as potentially it could have.

The minute we found out about this site, it was a

contingency action site, that's where it stayed and then we were anticipating continuing with the action program being implemented to all of the steps we needed to take.

We are working on identifying what the potential source was, immediately contacting the regulatory agencies, informing the Restoration Advisory Board.

We have been submitting all the letters and correspondence per the contingency action plan that we were doing as we have for all of the other prior contingency plans.

Too, the Restoration Advisory Board has been kept totally abreast of it. I want to reiterate we have not gone over the action levels.

We have been extremely pro active in our approach. We have had meetings with regulatory agencies.

We went out and we have done a hydro-punch sampling. We have instituted the initiation of the work to go back to the Commissary area.

So, obviously, it is a sad situation and no one anticipated that this was going to occur.

However, you know, when you put in tidal wetlands the size that you did, not knowing hydrology as much some other people in this area, when you change the complete gradient, you probably are going to have hydrology in that area that has some massive impact which potentially could

have drawn this plume which wasn't moving at the time in a much faster rate that is, in fact, coming from the Commissary.

But as we move forward, we are going to continue to be pro-active on the activity that we are doing now as we have been keeping the RAB informed from the beginning on this as we have on all of other projects.

So, we all work with regulatory agencies, with RAB as a team.

MR. O'HARA: Thank you.

MR. KERN: Other items? Anything of any kind?

AUDIENCE: (No response).

MR. KERN: Well, I just want to say that I would have enjoyed having a cookie tonight rather than bringing up old issues (Laughter).

Okay. Then seeing that we have nothing left on the an agenda, I will say thank you for attending tonight and the meeting is adjourned.

(7:52 p.m. ended)

PRESIDIO RESTORATION ADVISORY BOARD

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GOLDEN GATE CLUB, PRESIDIO

PRESIDIO RESTORATION ADVISORY BOARD MEETING

TUESDAY, FEBRUARY 8, 2000

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APPEARANCES

RAB MEMBERS:

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Saul Bloom
Edward Callanan, Jr.
Julia Cheever
Henry Chui, DTSC
Julian Hultgren
Kathryn Hyde
Doug Kern
Andrew Lolli
Bruce McKleroy
Jan Monaghan
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Ina Shlez, Presidio Trust

Karen Ladd, E & E Inc.

Patrick Ritter, E & E Inc.

Dennis Robinson, IT Corp.

Neil Morgan-Butcher, Tetra Tech EMI

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PRESIDIO RESTORATION ADVISORY BOARD MEETING

7:00 p.m. Tuesday, February 8, 2000

Golden Gate Club

Mr. Kern: Good evening everyone. We would like to welcome all the board members, Trust, Park Service, and regulators here tonight. And particularly members of the public who have come out this evening to witness and hopefully participate in the meeting. Does everyone have an agenda tonight? There are agendas in the back of the room if you don't have one.

Are there any changes or additions to tonight's agenda? Okay, then we would start off with committee reports. And we don't have Mark at the moment, but I will check in with some of the other committees members.

Ms. Monaghan: No, I have nothing. Thanks.
Sorry.

Mr. Kern: Just wanted to give the opportunity, Jan. Okay, Julie anything?

Ms. Cheever: Well, things will come up later on in the meeting.

Mr. Kern: I have been reminded to let people know that we have to speak into the mikes so we get it all recorded, and people need to sign in at the back. That is another thing. So thank you, Ms. Cheever?

Ms. Cheever: What I said was in our main committee that all members of the RAB are welcome to come to sort of a general purpose committee. Our planning committee met two weeks ago, but not being prepared, I would rather let Mark say what our agenda was. Our agenda was preparing for the main installation feasibility study. That will come up more later in the evening.

Mr. Kern: Thank you. Moving onto item 4 then. I guess we're ready for George and the Commissary Seep Presentation.

Mr. Ford: Thank you. I'm George Ford and I'm the environmental specialist at the Trust. That's my official

job title. My unofficial title is the dirt guy. I'm generally in charge of moving dirt around The Presidio,

and trying to get it off.

Anyhow, tonight I want to talk about two different problems. One thing that's going on right now is called the Commissary Seeps, and the second one is

the Building 38 underground storage tank removal, which we did in December -- I throw these two things out to give you an idea of what we're doing at the Trust and at least how I keep busy during the daytime.

The Commissary Seeps Project started out when some folks from Golden Gate National Parks Association noticed an apparently new seep in the marsh, which is here in the park. Seeps are right there. This is picture of the marsh. It doesn't exactly reflect the final form, but it's approximately the shape of the marsh. But as you can see, the seeps were observed on the bank of the marsh just north of the Commissary Building.

This is a picture of what the bank of the marsh looks like towards the north. That's the Commissary Building. On the other side of this fence is Mason Street. What you can see here is the seep area. What you're seeing is along this line -- below it you're seeing below the water table and you have groundwater seeping out of the bank and into the marsh and above it; where this drier, dark brown colored soil is relatively dry. This spot right here is a sampling of one of the pit locations where we took samples of the seepage.

This is another view. This is another sampling pit. This is looking northward, down the bank of the marsh with marsh grass on the borders. Right up

there is one of the pits where we did some sampling after the seeps were first reported to us. The way we took samples here -- in some cases we had seeps that were just coming down the bank that eroded a little canyon. In other cases we actually dug little pits and then took samples out of that. But you can see this area is quite close to the marsh and the marsh with tides fluctuates up and down in this area.

There's a timeline of events that will serve to demonstrate this. This is mostly what I've been doing since November. The seeps were reported to the Trust on November 17th, and we went out there the same day. On the 18th, which was the next day, we did the paperwork that was required by the Crissy Field Contingency Action Plan. And we also contacted the Water Board and DTSC by telephone, which we did. And we put together a draft response plan, and sampled the seeps. So the day after we found out about them on the 19th we sent written notices on the Contingency Action Plan.

On November 29th, we got the first results back from our seep sampling, which were .57 ppm total petroleum hydrocarbons gasoline. The number to compare that to is the action level at the marsh, which is 1.2 ppm. On December 3rd, we did the second round of

sampling. The results of the second round of sampling showed 1.1 ppm in one of the seeps. Again, it's below the 1.2 parts per million action. It is legal, but not a whole lot below it.

On the 22nd we met with DTSC and The Water Board to discuss possible operations for characterizing this further. On January 11th we did the Hydropunch sampling, which is sampling of shallow ground water north of Mason Street, but south of the marsh bank. These showed up to 3.4 ppm gasoline. These are levels in groundwater back a slight distance from the marsh, not flowing into the marsh. But the number was higher than the 1.2 action level.

The regulators requested that the Trust perform a source definition study. In plain language what that is is to find out where the gasoline is coming from. And that is what we've been focusing on for the last several weeks. The bi-monthly status meeting is with the regulators and some representatives of the Presidio Restoration Advisory Board and we have discussed the definition study and the overall situation. Last week we did a geophysical survey of the parking lot of the Commissary, which is where we suspect the source of the gasoline may reside.

One of the results is that we found two

geophysical anomalies, but we think it is likely that it is beneath the parking lot of the Commissary. That brings us to where we are right now. Next Monday we're going to be excavating in the north parking lot of the Commissary to try to find out where this gasoline is coming from. We expect to dig all day Monday and Tuesday morning. And we think that by about 10 a.m. on next Tuesday the 15th, we should know if there are tanks.

There we will have exposed them and will have test pits that people can come look at and see. We'll either know whether -- My guess is that we will have located the source for the gasoline in the groundwater. We have a few pictures here of other things resulting from the Hydropunch sample.

This machine puts a casing into the groundwater that has holes cut in it. If you leave it in the hole for a while it fills up with groundwater out of the inside of the tube. We spaced these points roughly 30 feet in a line in front of the Commissary. You see that Mason Street is right there. This is a bike path. It will be the new bike path. This is the marsh. The edge of the marsh is right there. The area where we've been sampling the seeps is right there and we did a line of Hydropunch points right here, and then we stepped another line closer to the marsh.

This is the Hydropunch sampling machine out on the line. That is close to the marsh. The all-terrain machine went up the marsh bank quite well. It never got stuck. This is a view looking eastward along the marsh bank and seep sampling points. One of the reasons we put this in here is you can really see that there is no trouble spotting where the water table is here and very distinctly above it. We are sampling flowing groundwater. It is not marsh water that is trapped in the soil or anything like that. It's pretty clearly groundwater.

This is another picture. This is a case where the groundwater actually occurs right here. It visibly flows out of the ground. We didn't have to dig a pit to get a sample and the volume of water that flows downhill into the marsh eroded a small canyon that goes down into the marsh. Places where we take samples locations we put in a stake right there.

So those of you who can come, we'd like to have you come out and visit when we have these tests pits open. It's next Tuesday. If you're coming to see us please RSVP to Ina so we know how many people are coming. And when you come, park in the main Commissary lots, which is in front of the main doors of the Commissary and then walk around the Commissary to the

west from the test pit area. The test pit area will be fenced off and there won't be any parking there. Does anybody have any questions?

Mr. O'Hara: The test results -- the first 1.1 parts per million and later. Are those average rivers or --

Mr. Ford: No those are single sampling points. For instance in the Hydropunch survey we took two separate samples and analyzed all of them and they ranged from nondetectable out in the sides. It is higher than 3.4 parts per million right in the middle of the plume.

Mr. O'Hara: And that was the highest?

Mr. Ford: The highest one we found.

Mr. O'Hara: And how far away from the original detection site is it? How far up the stream is it?

Mr. Ford: The 3.4 parts per million test is probably about 50 feet upgradient of where they actually sampled the seeps. So it is back from the marsh, not too far. It's still -- the north still -- on the north side of Mason Street.

Mr. O'Hara: Thank you.

Mr. Berman: This is a question about the tanks. Given the technology for metal detection, which is very extensive, isn't it possible just to identify

whether there are tanks nearby. Surface techniques, I mean -- I mean these are not going to be little, tiny vessels. They're going to be sizeable and it would seem to me that identifying such things with metal detection is quite well known.

Mr. Ford: My experience has been that the geophysical techniques work really well when you know exactly what you are looking for, and if you're trying to look for tanks at the end of it, you can usually get results from your survey that clearly indicate that it's a tank there. In this case we're not sure what's there. We suspect that there could be tanks but we don't know. So really what we have is just a rectangular -- a couple of rectangular target areas and I would think to be tanks.

I mean, I expect that once we dig in there we will find tanks, but you can't really confirm the presence of a tank with any certainty, especially an old tank without digging. I don't think there's any substitute.

Mr. Berman: I guess I'm surprised to hear that knowing especially how much the army has invested into metal detection for surface mines and all kinds of things. I just find your answer shocking. I think you just haven't looked at that technology and you haven't

tried it. If it's available, and maybe I'm way off base here, but I'm just a little surprised.

Mr. Ford: If I could offer one other thing. If there are tanks there we're going to have to dig them up anyway. So very little is lost by digging and exposing the tanks because if there is a tank we're just going to keep digging and take it out. If there isn't a tank we'll test the soil anyway and probably just close the hole back up.

Mr. Berman: Naturally you have to take them out, but in terms of location -- I am not saying you are going to use metal detection to remove them by sucking them up with a metal detector. I am just saying it would be advantageous to know where they are in terms of making the the excavation process simpler.

Mr. Kern: How far from are the suspected tanks from say the 3.4 parts per million sample? Are they far away?

Mr. Ford: They're over a hundred feet away you know. You have to come at least 100 feet south all the way across Mason Street. The tank targets that we are looking at are right smack in the middle of the northern parking lot of The Commissary.

Ms. Cheever: I really appreciate the maps and the photos. There's one thing I didn't get though.

When you say you found something like an anomaly. You indicated two rectangular things that might be tanks. What was that you found when you were using there? Were you using a metal detector?

Mr. Ford: The bulk of the survey that was done in that parking lot was using a conventional metal detector, which would give a signal when it was in the proximity of metal. The metal detector itself was very busy working down there because the parking lot was crisscrossed by all sorts of electrical conduits and drain pipes. And there's quite a few underground utilities in that area.

So, if you come down to the parking lot we could show you wherever they got a signal indicating a metallic object underground they would paint lines on the pavement. There are quite a few lines painted on the pavement down there on the parking lot.

As we dig these test pits we are going to have to be excavating carefully because there's a lot of things underground that we don't want to damage. And the other thing -- The archeologist will be on-site as we are digging because although they think that an archeological site is located to the west of this site, it hasn't been located precisely. So, you know, we have to do our initial digging on site very carefully until

we're sure about what we're digging into.

Ms. Cheever: Has it been determined that this is a newly discovered thing? I know the agreement with the army or --

Mr. Ford: That's a good question. I guess it is really not newly discovered in the sense that we have known it was there. It was known that there were tanks in the Commissary area. They haven't really been precisely located, but the idea that the Commissary site has tanks located there is pretty well established. So in a sense, although we haven't yet tied this contamination to a specific tank, it seems like that where it's headed.

I mean to me the evidence is pointing towards a source somewhere on the Commissary property. Maybe we'll find a tank that we can trace it back to the exact spots or source. Maybe we won't be able to trace it that precisely, but all the fingers are pointing back at the Commissary, which was a known area where there were lots of tanks, things like that.

Ms. Cheever: Thanks.

Mr. Kern: Any other questions?

Mr. O'Hara: Assuming for the moment that you don't find a tank, have you given any thought as to what you would need to to remediate the threat to the marsh,

to alleviate the threat to the marsh? And then what you would do to dispose of the threat?

Mr. Ford: Well, I would say we have been tossing some ideas around the office, but we're not really at that point yet. We are still collecting information. So what we're trying to do is get enough information so that we can locate the source and see how big it is. Because if it's a finite source, a single tank there that sort of thing, it is easy to dig out and get rid of it. If it's a generalized source -- For instance, if what we're seeing at the marsh is actually the far tip of a very large plume that originates way back under the back of the Commissary, you can't just dig something like that up and solve the problem.

So, at this point it's too soon to tell what the remedy might be. But what we're hoping is after we dig these pits, and we will later be doing soil sampling in the pits. After we have that information I think we'll be in a pretty good position to start talking with with the community and the regulators about what the next step is. Which would be -- If we can solve the problem completely we'd like to do that. If we can't what we will be looking at is interim measures that will make sure the marsh is protected and that will get rid of the gasoline in the groundwater that is actually

flowing into the marsh. Whether that is a small job or a very large job we don't know.

Mr. O'Hara: Thank you.

Mr. Kern: Other questions for George on the seep? Do you want to move on?

Mr. Ford: Everyone is probably tired of hearing me talk. Building 38 will go by quickly. I'll talk now about the Building 38 underground storage tank removal. Building 38 is one of the historic army barracks. There are two of them located on the Main Post. Building 38 and 39 are twins. Building 39 you may know is the San Francisco Film Institute. It is currently being rehabed. Building 38 is in it's original condition. It is showing some signs of wear, but it's going to be rehabilitated shortly.

This building had a 10,000 gallon fuel oil storage tank located right next to the outer wall of the building. The storage tank was used to feed heating oil to the boiler that used to be located in the basement. We think the tank was put in about the time the building was built, which was in the early 40s. So the tank is nearly 60 years old.

As it turns out we had to do quite a bit of work just to get to the tank. This is a picture of the back of Building 38. The fillneck for the tank is right

there. You can see it's within about 15 feet off the outer wall of the building. And right on top of the tank you have a cinder block air-conditioning enclosure and two separate buildings, housing back-up generators. The army, I guess, was concerned about running out of electricity so they had two diesel back-up generators in the sheds. We had to get rid of the buildings to get to the tank.

So that's what it looked like before. This is what it looked like after we worked for a few days. You can see that the small utility buildings aren't looking so good. This is the fillneck for the tank. The long axis of the tank was about 28 feet long and 8 feet in diameter. The long axis of the tank was parallel from the building going this way.

The other interesting thing about this tank is because it is associated with a basement boiler and it had gravity return lines back to the tank, the top of the tank was almost 8 feet down. So it was an 8-foot diameter tank and the top of it was 8 feet below ground surface. By the time we dug a hole to get this thing out, we had a really deep hole. The contractor encountered a few other awful surprises while he was working.

These diesel generators vibrate so normally

they were mounted on footings to hold them secure as they vibrate. I've seen a bunch of those and I expected that with floor slabs 4 inches, I was thinking that the diesel generator's footings would be 6 to 8 inches thick, maybe a foot at the outside. Well, there were two of them and this is a picture of them. They were both 5-feet thick. So apparently they were made in the days when concrete was given away free. So if you had a hole you filled it full of concrete.

It took an extraordinary effort to break these big chunks of concrete up and get them out of the way. And at this point we still hadn't even exposed the tank. Well, finally we did get to the tank.

We had to deal with a couple of other things. One is where there were live telephone and fiberoptic conduits that went over the top of the tank. And those had to be maintained in service. So the way that the contractor did it was he took an I-beam and laid it across the excavation, and then hung the telephone and fiberoptic conduits from there, from the I-beam. So these things were hanging up in mid-air above the top of the tank and this tank is still down here in the darkness.

Finally, we got the tank exposed. Here again you can see the phone and fiberoptic conduits hanging.

The contractor rinsed out the tank, took all the liquids out and got it clean. Once it was clean they could cut it into pieces. In this case they had to cut it into 3 pieces because with telephone and fiberoptic cables going over the top of the tank, they couldn't pull it out in one piece. So they cut it into three sections and yanked it out. This chunk here is a little less than half a tank. You can see it is almost 15 feet long and 8 feet in diameter.

Anyway, they pulled the tanks out. They did confirmation sampling at two locations in the bottom of the excavation below the tank. Both of those tested clean, so we were confident that the tank never leaked. All the pieces of the tank were pulled out, set on a flatbed truck. They used a 60-ton crane to pull the tank out. It had very thick steel walls. They were taken to a recycling facility to be melted down. Then because the hole tested clean, we were able to immediately go in and backfill. So the contractor put in compacted backfill -- There was almost 16 feet of it, and backfilled the excavation up to ground level.

And the final slide shows how it looks today. There's Building 38, no utility sheds, and there's no tank. We left this area unpaved because the building is going to be turned over to a new tenant, presumably

within the next few months. They will do their own paving and landscaping in the back. So there really was no point in replacing pavement that would just be removed in a few months.

So that is the story of Building 38. Anybody have any questions?

Ms. Monaghan: What did you do with the generators?

Mr. Ford: The Trust Salvage Department has them now. If you need a generator you should call Dave Seabury. He would like to make you a deal. The generators weighed about 5,000 pounds a piece. They were very heavy and it's amazing a crew excavated them out of the sheds and took them away. It was not like moving a shoebox. They made it look easy.

Mr. Berman: Was there any fuel left in the tanks?

Mr. Ford: Actually this tank had about a foot of water in it. But it appears that the army, at some point emptied the tank completely. The boiler in the basement of Building 38 had been converted to run on gas some time ago. So this tank had been out of service for many years and it looks like they did a pretty good job of emptying it out when they stopped using it.

Mr. Berman: So if it was empty and it only had

water in it, why did you remove it?

Mr. Ford: An empty tank like that -- Eventually nature abhors a cavity like that, except in limestone. Eventually the tank would rust out and you would be at risk of collapse. And because it was right next to the building we just concluded that it would be better to get it out rather than to leave it in place.

So it's really more of a policy decision. Any tank that you leave, in the ground -- There are a number of cases where leaving a tank in the ground is appropriate, but this one -- the tank is very close to it. We just thought it would be better to take it out.

Mr. Kern: Other questions for George on Building 38?

Mr. Ford: Thanks for your time. I appreciate it.

Mr. Kern: Thank you.Thanks. Now we can go over to Chris on his project.

Mr. Nelson: Well, let's see. There's a lot of stuff that has been going on. Hopefully this will sound new to you since the last meeting. I'll start out with the groundwater monitoring program. You'll recall from past meetings that we we are still monitoring groundwater at three sites: DEH, Crissy Field, and

Landfill 8 at the Public Service Health Hospital. Monitoring is required and between the last meeting and the end of January Montgomery Watson completed their sampling of those three sites and at this time we are waiting for the results and have them produce a report.

If you recall about the end of last year I sent out some letters and some copies of reports to certain Presidio Restoration Advisory Board members. Please take a look at those. Some good news has occurred on the feasibility study front. First, we have a signed contract and we're very close to negotiated task orders with E.K.I. They will begin working on the work plan which is essentially the road map for the Feasibility Study next week. We anticipate having a meeting with them to discuss the strategy for the feasibility study with the RAB. And they will be presenting that strategy for the feasibility study at the next Presidio Restoration Advisory Board meeting. We will get our sleeves rolled up and start working on the feasibility study.

There will also be a task doing some community relations support, which will entail regular quarterly meetings and the Presidio Restoration Advisory Board meeting. And we'll also have the response to the army's

final feasibility study that was completed in 1997. So we will have been taking quite a few tasks going on at once.

Once the work plan is completed we will be able to finally negotiate the cost and acceptance of the feasibility study will follow. This I will begin working on as soon as the work plan has been approved.

There are a couple of monitoring wells that we discovered out at the Letterman Hospital Complex. Four wells put in at the Letterman Army Medical Center for research by the Park Service as part of their real estate transfer assessment activities in 1995. Based on the analytical results of those wells we determined it is not necessary to keep them in place and those will be abandoned very soon. We put out some bids to drilling companies to come out to the abandoned wells. Also numerous wells were not facilitated in the eventual redevelopment of that site. There were some underground storage tanks in some buildings on Portola Avenue and some duplexes that the Trust recently removed. I believe it was six tanks. Is that correct?

Mr. Ford: Yeah.

Mr. Nelson: And all those tanks were removed. Primarily they were removed when units became vacant and we were able to go in, cut through the floor, and pull

the tanks out. None of them contained any liquid or fuels and no contaminated soils were found beneath the tanks. So they were cut up and taken out and the reports for that as well as the Building 38 tank removal, and also if you recall Building 68 tank removal earlier this summer will be available and mailed out probably by next week.

Mr. Ford: You might point out there's a poster board in the back of the room that shows some scenes of the removing of six tanks from the duplexes on Portola Street.

Mr. Nelson: The last item I have to report on is that the Trust, if you recall, completed it's final corrective action plan for the Building 637 site this past summer with quite a bit of participation from many of the Presidio Restoration Advisory Board members. If you recall the first phase of work was doing some excavations of some hot spot soil. We then backfilled those excavations with clean fill and with O.R.C.

The second phase of the work was to basically go back in and put in some injection points throughout the site to inject more O.R.C. into the ground and try to put the O.R.C. in contact with shallow groundwater to oxygenate the environment and sub-surface and enhance the microbial degradation of the fuel.

The first step in this process is we are going to take some baseline samples of the new wells put in in October and we're going to report that to the Regional Water Quality Control Board. So that we know the conditions of the groundwater before we actually put in this O.R.C. so that in a few quarters maybe we can see a trend with what's going on. Perhaps the concentration is going down.

The plan is to review the bids when they come back in from the firms we sent them out to. And there is going to be approximately 95 shallow borings that we're going to place throughout the site. And as we've spoken about in the past, we will notify the RAB when that occurs. You are invited to come out much like the Commissary Investigation. They can come and see the O.R.C. if you're interested in seeing that.

That is about it for now. Any questions?

Mr. O'Hara: When you discovered the wells at Letterman, are you essentially sure you have a real estate that is free and clear of toxins?

Mr. Nelson: That is correct.

Mr. O'Hara: So, when you negotiate the contract with the new tenants, you'll be turning over property to them that is free of contaminants?

Mr. Nelson: Right. There hadn't been any sites

identified in any of the other previous army investigations. I guess this was sort of an insurance policy investigation that the Park Service conducted. There were some concerns I guess during the preliminary assessment 11 years ago. Nothing was ever found of any contaminating elements anywhere throughout the area.

Mr. O'Hara: Thank you.

Mr. Kern: Questions?

Ms. Cheever: Back to the feasibility study, I know there are many contracts, but now that you've moved a step forward, do you have a new time estimate as to when is it still the same as to when the public can comment on the feasibility study and when will the comment period begin?

Mr. Nelson: There is a schedule that we're setting for E.K.I. The first step will be for them to get -- You'll actually see the responsiveness summary on the feasibility study first in that there are group meetings by the Presidio Restoration Advisory Board. The feasibility study -- the public comment period is probably a good five months down the line and that will be followed shortly by a RAP. We're trying to compress the schedule as much as we can to get the feasibility study for the main installation done. This year that would be our goal, and of course as we spoke of last

night at our meeting, the working group meeting regarding the Lobos Creek sites, Mark Youngkin pointed out that if everyone recalls from past experience the alternate remedial actions document was prepared by EKI for the Trust. It is something that sort of has a lot of remedy possibilities laid out. So we're going to be working with those with you to evaluate the criteria.

Mr. McKleroy: Does that mean the public comment period will be in July and August? You say five months from now?

Mr. Nelson: We hope so, yeah.

Mr. McKleroy: That's not a good time for the public to be active in this. Usually that is the traditional time when vacations happen; when people are away and you don't get fair exposure. So, if you do intend to do that, then I think at the very least you have to inform the public.

Mr. Nelson: We were going to get it out as soon as we can. We are working with an aggressive schedule. I would hope that as far as Presidio Restoration Advisory Board comments go that by the time we work through the feasibility study there probably won't be much of anything to comment on. As far as the public goes it depends on the way it goes. It really depends on their participation.

Another forum will discuss the feasibility study and I believe when the proposed plan comes out there will be an opportunity to read some information on remedies that have been selected. So hopefully we'll endeavor to get the public informed as quickly as we can and give them an opportunity to comment on it.

Ms. Shlez: First, I wanted to address that. We are still a little bit too far out from it to determine the exact date of when the public comment period would start. The public comment period will be at least 30 days and we will have public meetings associated with that and fact sheets and all sorts of other materials to let folks know what's going on and ways they can comment. And we would certainly make every effort to accommodate people's schedules. And if it means possibly pushing it off a couple of weeks to get into September, we might need to do that to get the comments and high caliber of comments that we're anticipating.

We'll try our very best to accommodate that and as it gets closer, we will have a better sense of when it will actually be, we will let everyone here know way in advance -- as much in advance as we can to do that.

Mr. McKleroy: Okay.

Mr. Kern: Other comments on Chris's report?

Other questions? Okay. Is there any new business?
Anything else?

Ms. Shlez: I apologize for -- I sent everyone an email of tonight's agenda. I thought I would have copies of the charter for tonight. Unfortunately, our copier is on the fritz today and I wasn't able to do those, but I will get them copied as soon as possible and get them mailed out to all the Presidio Restoration Advisory Board members. So all the RAB members will each have one.

In the meantime I was able to get copies of the new Roster that is being handed out. As always if you see anything that you need corrected please let me know and I'll be sure to do that. If there's a significant amount of changes, which I hope there won't be; if there are a lot I will to reissue it soon. And if not probably in another few months we will get that out.

Mr. Kern: Any other new business this evening? We have, I think, not necessarily developed out of tonight's meeting, but Julie mentioned that the working groups are still meeting. We had a meeting last night from the Lobos Creek Group and I think the group is trying to decide. Now just that one group out of the four. Between now and the next Presidio Restoration

Advisory Board meeting how many meetings they might want to have? Perhaps two meetings between now and then? And this is sort of a early warning to try to get some ideas out to all the group members about possible times that people will be able to meet. Perhaps a couple of meetings -- and one idea was that the first meeting would be thinking about what the group would want to present and the second meeting perhaps would be a run-through-type meeting for the presentation.

That was the one possible scheme still under consideration. So all of the groups, all four groups, we still have to decide within all the groups who would be ready to do such a presentation at the next meeting. Since we have several Presidio Restoration Advisory Board meetings coming up another thing that the Lobos Creek working group discussed was perhaps the the goal, the objective to have this first round of presentations by Presidio Restoration Advisory Board members to inform the rest of the Presidio Restoration Advisory Board about sites; get people up to speed about issues around these sites. It wouldn't necessarily be a completely comprehensive discussion. It wouldn't necessarily get into debate about possible remedies.

More what's going on at the site, the issues of concern there, that sort of thing. So I'm mostly

trying to get that out there for people so the other groups can also consider what they might want to do. Between Mark and I we're going to try and support getting all four groups. So one group that I need to perhaps talk to some people after the meeting tonight is the Tennessee Hollow Group. I would like to see you folks afterwards.

And the other one we pretty well tapped into so, any comments? Might be a good time if anybody had any thoughts about a month from now on what they'd like to see.

It is just occurring to me that one other thought that came up was rather than have each Presidio Restoration Advisory Board member get up and make part of the presentation themselves, which could get sort of laborious, every single Presidio Restoration Advisory Board member getting up. The group might decide to elect a spokesperson. That person would give the presentation and there would be a panel of support. I have Presidio Restoration Advisory Board members to add additional information on site.

Is there any other thinking that people would want to share at this meeting about a month from tonight.

Mr. Berman: Did I understand from Chris that

at the next meeting we would have a representative from E.K.I. to discuss something about the progress on the feasibility study?

Mr. Nelson: About what is in the feasibility study?

Mr. Berman: I think you mentioned the next meeting.

Mr. Nelson: Yeah, the next meeting they will give a brief presentation.

Mr. Berman: So, that's an opportunity in some sense if there's some discussion about some of the the plans that are in the E.K.I. document with direct opinions on the meeting. So it might be useful to have some discussion from the working groups if it was useful to have some exchange with E.K.I. It's just a thought. I don't know if it would be appropriate at all at the meeting, but in view of the fact that you mentioned an E.K.I. representative to be present, and speaking that it might be useful if there were some kinds of exchange.

Mr. Nelson: Of course, I anticipate they're going to be presenting. I think that would be a great time for membership to ask questions if you are interested in getting some input in where and what kind of collections they have. So it's going to help move the process along to get your input.

Mr. Kern: So that is a good point, Sam. They can weave that into their presentation and that E.K.I. would be there. Any other comments about next month?

Ms. Cheever: As I said in our small group, I'll say again I feel like I'm personally getting familiar with the study in my group, but I would very much like to learn about the other areas. So I'm looking forward to hearing from my colleagues about the other areas. And the Lobos Creek Group happens to be very well represented tonight and maybe we can talk about when our next meeting times might be.

Mr. Kern: Okay. So I guess I will take it upon myself to be calling around to people making sure we have enough meeting times and dates. Any other action items that people can think of?

Ms. Shlez: Sorry I didn't mention earlier. We have new name plates and these are going to work better for everyone in the future. But the old ones are back there and since they already have your names on them, please pick yours up on the way home and amuse your friends and neighbors with them. They're all in the box back there and please do that before you leave tonight and you will lighten my load significantly if you take yours tonight. Thanks.

Ms. Cheever: I have something else I want to

say. At our meeting last night we were appreciative that the information from the Trust actually helped us a lot with just getting better knowledge. So I encouraged other groups to use them.

(Laughter)

Mr. Kern: We are involved in so many already. Okay.

Mr. McKleroy: When our group met in going over the remedies, possible budget constraints always come into play and our question was about cost for hauling and whether those adjust. We don't really have the resources to look at those costs and I think we may need some help down the line on looking at those because it looks like the remedies get close to being feasible. Because of costs having to come down I don't know if that was experienced earlier by a number of other sites where there ought to be an easier remedy and if you have an input on that, that would be helpful.

Mr. Nelson: Well, I don't know how much on a real time basis of meeting about cost estimates and how they reflect in 2000 or -- E.K.I. will be going through cost estimates for the implementable solutions that we come up with so that will be part of the process of completing the feasible study. Does that answer your question?

Mr. McKleroy: I think it's skeptical. A lot of hard decisions are to be made based on whether it is cost effective too.

Mr. Nelson: Right.

Mr. McKleroy: The imagination of the contractors and implementing certain tasks in a cost-effective manner -- so those types of choices, I guess, would be reflective of E.K.I. or the Trust together choosing the right contract and at least in the early phase making it -- letting the contractors come up with some solutions to give them a little bit of latitude and trying to craft the solution as well so that they're not the solution, but maybe they can do it better and cheaper all around.

Mr. Nelson: They did bring on some construction-type people. I can't remember the names of the companies right now. I'm sorry, to look at the remedies that were selected and the altered remedy that was given to them -- The real world look from someone who does it on a regular basis. So give it a reality check. So I anticipate that they will be able to provide that throughout the process and hopefully, I don't know what your what exactly you're looking for in these meetings. I hope I answered some of your questions, but I think your suggestions are good ones.

Mr. McKleroy: Well, I think you're on the right track if you're doing that to get real people signed up so you can see their idea. So it's a great idea and the earlier the better. I guess in all of these many depend on how much money they have and whether they have an array of preferred contractors and whether they can bring them in areas where they wouldn't necessarily have the contract. This might be a solution.

Mr. Nelson: I didn't --

Mr. McKleroy: So, we're just thinking it would create a solution at this point.

Mr. Kern: Thanks, Bruce. Anything else? Any other action items? Looks like agenda items for next time we have the EKI presentation. We have Presidio Restoration Advisory Board working group presentations and so working groups need to select a spokesperson or people to make sure that you are saying everything you want to say and now we are getting the presentations -- We're getting that together.

Mr. O'Hara: I'd like to see on a monthly basis an update on this seeps issue until the solution is developed and networked.

Mr. Ford: We will be giving updates on the Commissary next month. Until we have an idea of what's

going on.

Mr. O'Hara: Okay.

Mr. Kern: Any other suggested agenda items. You can get those to Mark if they come up over the next couple of weeks. Are there any other announcements of items of any kind? Any comments from the public? Very well then, without objection our meeting is adjourned. Thank you.

(Meeting adjourned 8: 10 p.m.)

March 14, 2000

MR. KERN: I would like to welcome everyone here tonight to the meeting. It's like just as we started the ambient noise began to increase from the outside. So maybe we will get someone to close the door. There. It is quiet. I would like to welcome all the regulators here this evening, community members, members of the Board, Presidio Trust, National Park Service, and contractors that are with us this evening and particularly members of the public that are here tonight. Thank you for being here. I would like to let everyone know at the start of the meeting that we have a new stenographer. Her name is Beth. She was with us last month if you could point your name tags toward her that will greatly help her.

Announcements -- signs are at the back if you haven't been here before that's how we keep attendance and welcome. Does everyone have an agenda? That's really important. Okay. Are there any changes or modifications? Okay I see none. Let's move on to committee reports.

MR. YOUNGKIN: We had our monthly planning committee meeting on February 22nd and it is the fourth Tuesday of the month. And we discussed a few things. We talked about the Commissary. Several RAB members had gone out to watch them and inspect them. So we had a discussion about the test pits and what the results were. And then we spent most of the time talking about the working groups with preparation for the presentations later on tonight. And then just -- I hope I answered some miscellaneous things on membership. We talked about the old E.K.I. reports for a few minutes and how it applies to the upcoming study process. We talked about the scoping meeting coming up so just an uneventful monthly planning meeting. The next meeting is the fourth Tuesday of this month, which is what date? Does anybody know? The 28th at 7 o'clock in Building 1715.

MR. KERN: Any questions for Mark? Oh, come on. We should put him on the spot. All right so on to reports and discussions. The first item that we have is the project status with Chris.

MR. NELSON: Thank you, Mark.

MR. KERN: Just a little to fast?

MR. NELSON: Good evening everyone. My name is Chris Nelson. I'm the project manager with the Presidio Trust. I recognize most everyone tonight. I'm going to be talking about a couple of upcoming procurement opportunities that I've been overseeing for the Presidio Trust. Bear with us. Okay. Recently we released a request for qualifications for architect-engineer services, which is similar to what some of the army contractors at E.K.I. have done for us here. We released the RFQ the fourth of February, I

believe, and that is going to be covering a lot of different activities and it will be on going parallel with the installations. A work feasibility study will follow that Albert Chan has performed for us. We had a proposal conference that was well attended by many folks up at the log cabin. In fact, I see a few people here tonight that were there. And we're currently accepting questions from contractors on this procurement, and I believe Friday of this week is the deadline for submitting questions to our contracting officer here, Albert Chan. We've been communicating with them by email or fax, I believe and we endeavor to get those answers to you as soon as possible. I've also been currently working on groundwater monitoring water request for proposals that's currently in progress, and will essentially cover just about all the sites here on a quarterly basis. Some sites receive four quarters of monitoring, some only a few monitored quarters to mirror what the army had set up and this will allow us to continue to monitor the groundwater at a variety of sites until we have more data completed. At that time we will be able to revisit what our problem sites are, which ones need further addressing of the groundwater issues. So with that project, we'll probably see proposals before the end of this month and schedules will be fairly similar in terms of timing to the request for qualifications for the architect-engineer services. So I would anticipate we'd have a contractor providing base-wide monitoring by the June quarter of this year.

Questions?

MR. O'HARA: Can you give us an overview without getting into specific details? Can you give us an overview of what the scope of service is, the architectural and engineer consulting services will provide?

MR. NELSON: Yes, of course. What we're looking at doing is hiring three to four architect-engineer consultants who will provide us with such services as continued investigations at some of our blooms completing those corrective action plans that are still pending, potentially addressing the new direction system that remains, some lingering issues there. They may be providing assistance with community relations support, they may be providing assistance with environmental management system. We have construction oversight at some sites where mediation will be ongoing such as main installation sites and the Public Health Hospital sites. And there's a variety of items that need to be completed that they'll be overseeing for us all related to the clean up that we agreed to with the Army and Park Service.

MR. O'HARA: Are these specific contracts in terms of time? Do they typically run for a year, two years, five years?

MR. NELSON: We're looking to do, I believe correct me if I'm wrong Albert, is four --

MR. CHAN: I believe it's four.

MR. NELSON: So we'll have a base contract of a year performance of those different contractors. They'll be operations that they may be available to participate in. I believe that that's four operation years that would be possible.

MR. O'HARA: At whose operation? Yours or theirs?

MR. NELSON: At our operation.

MR. O'HARA: Thank you.

MR. NELSON: Thank you.

MS. WRIGHT: I have a question about the groundwater monitoring program. You said that this might be based upon what the army had already done monitoring sites that had not yet been characterized, or do you know at this point?

MR. NELSON: This program will continue to look at sites where we continue existing monitoring we wills. There are some sites based on the Crissy Field where additional we wills will go in and this contractor will likely, maybe not this year, but in the next operation year participate in simple sampling those once they're in. We don't anticipate looking at additional sites that haven't been characterized unless radar screens or the Commissary site for instance.

MS. WRIGHT: I guess some of the ones that are up that are kind of senior on the list have we scheduled some of those sites? I know they haven't been characterized, but since we're kind of coming up on the radar screen, or do you know?

MR. NELSON: Right, difficult situation. For one thing you would probably be hard pressed to get a rig in anywhere to get a well in, and secondly most of what you have in that area -- but you essentially have buried surface water that goes beneath the debris, and in some places it's poking out of the seeps so if it were appropriate to monitor collecting seep samples.

MS. WRIGHT: Okay Great, thanks.

MR. NELSON: Sure.

MR. BERMAN: Just along the same line. In the E.K.I. report there's a number of instances where they have recommended, E.K.I. has recommended additional we will be for monitoring purposes. Do I understand your last remarks to mean that those wells are not to be monitored?

MR. NELSON: No. Actually let me clarify that. As I mentioned this program is for the exiting monitoring we wills. The sites that fall in the main installation operable that we're going to be doing the Feasibility Study on. Currently where they are remedies, those will be included in the network.

MR. BERMAN: And they are by the consultant?

MR. NELSON: Perhaps that would be ideal.

MR. BERMAN: Negotiable. That would be additional then?

MR. NELSON: Right We're setting up the contract to make it flexible. We felt that we could improve upon what the Army had started. If a well is not accessible we don't want to have to sample if * if we can't fix it. And if we did sample it the next time there would be additional we wills added as we will.

MR. BERMAN: So just another clarification. Does monitoring mean that samples are taken and sent to some laboratory for analysis?

MR. NELSON: That's correct.

MR. BERMAN: Or that the contractor selects, that you or the contractor selects?

MR. NELSON: The contractor will most likely. We'll have to approve it in the proposal process. It goes to a state certified laboratory. So, yes for those of you that I didn't clarify that for, if you didn't hear monitoring groundwater samples from the we wills and analyzing them for chemistry, and each site has its own unique chemical depending on what's been there and what's historically been found. Anyone else?

MR. MCKLEROY: Along those lines of the variety of chemicals that will be tested for that came up during the Army's ten years, as to which chemicals would be selected. As being that seep to be checked on, one of them I think was cyanide. We had also F probe 6, and on some of those sites that may be somewhat of a moving target how we work this out on the Feasibility Study.

MR. NELSON: Yes. There has been some chromium 6 analysis done in the past. The problem with it is that the four-hour holding time makes it very difficult to analyze the sampling before it's no longer reliable. We have in the past -- the army and also for us at the some of these sites chromium if you're finding all hexivalent (sic) chromium, but we are evaluating the list very carefully so that we don't evaluate chemicals that we don't really need to be analyzing for. And adding in places where it's necessary.

So keeping in mind what you said, the Feasibility Study, the process that -- in a few moments it will become clear what's important to monitor for in the future, and if we need to add those contaminants we may. Does that answer your question?

MR. MCKLEROY: It does also occur to me we had some conditions particularly around El Tolen (sic) Springs where there was some Ecoli bacteria. So there was some bacterial items there as we will. I was wondering if it's all organic or if you are checking for other contaminants?

MR. NELSON: I don't think that the Army --

MR. ULLENSVANG: The army wasn't doing any bacterial analysis on its samples contract. If that became an issue than it probably could be added in if it needed to be. But right now it's something that the Army hasn't been doing and I don't think the Trust is proposing to routinely add it at this point.

MR. MCKLEROY: Thanks.

MR. NELSON: With that I'm going to turn it over to George Ford, who's going to talk about a few of the projects at Crissy Field that he's been working on recently.

MR. FORD: Thank you. We've been busy since the last time we all met. The first thing I want to talk about is the Commissary Seeps, which we went over a little bit last month. This slide will show you

where the seeps are. They're in the extreme southwest corner of the marsh right in front of the Commissary Building. We've excavated two rounds of test pits on February 15th. We dug nine pits then on the 28th. On the 29th we dug two more. This is an example of what I get to look at when I'm working for a living. I dig holes and then look very carefully at holes in the ground. The one on the left has contaminated groundwater in it. Actually they both do. You can tell they are contaminated in these photographs because the water looks a little foamy. It's difficult to see in this picture, but in the photograph on the right there was actually a visible petroleum sheen on the groundwater. It remained there for a brief period before it evaporated. These were excavated in the north parking lot of the Commissary. Anyhow, where we are with the Commissary Seeps, right now we've completed five rounds of sampling of the seeps on marsh bank. And the level's concentrations have stabilized in the general area of a half a part per million gasoline. So they go up and down a bit, but they're generally going between four tenths and 6 tenths of a part per million. Those concentrations are below the marsh action level, which is 1.2 parts per million for gasoline.

We think our test pits -- we have a total of eleven of them now and have identified a possible source area for the gasoline in the north parking lot of the Commissary. And the next step is to discuss operations for what to do about this with the RAB and the regulatory agencies. So we're trying to get that process started right now. That's the Commissary. Does anybody have any questions?

MR. O'HARA: The 1.2 parts per million, which is your minimum or the maximum level of acceptability before you have to take action? What number, or how is that number derived? Is that based on your acceptors or what? What is the basis for that number?

MR. ULLENSVANG: That was defined by the Army from a series of bioassays. And you may recall probably two years ago the army did a presentation. They did both work for salt water receptors and fresh water receptors. And so the two came from the studies of salt water receptors, picking three different types working with the regional board testing plankton-type organisms generally from the Presidio and subjected them as test animals to the contamination, and looked for different types of effects. And from those effects that were observed would be a safe number. And that's how the 1.2 came about.

MR. O'HARA: Realistically speaking, given the use of that particular venue and the expectations for the various, and to some degree receptors that will be in that venue, how realistic is that number? Does it pose a threat?

MR. ULLENSVANG: It was defined for things like the marsh. The marsh was specifically in the mind of both regulators. And the Park Service was involved trying to make sure of the level of future use there. So as to the degree that science can be trusted -- I mean obviously science will get better as time goes on. It depends on the way it goes on. It seems to be a reliable objective number.

MR. O'HARA: Are the receptors that were used as the test receptors typical of those that you will find in the marsh once it's completed?

MR. ULLENSVANG: There were species typical of what would be there or more sensitive than you would find such as sea urchins, larvae, and other species of that sort were picked particularly to represent different types of organisms or of different life stages of organisms that would be out there. And these types of animals are only available certain times of year depending on what time of year you are area doing the tests. But the Regional Board approved the animals that were used with the Army and felt that they were representative and appropriate for this type of investigation.

MR. O'HARA: How far up the chain of receptors did you go?

MR. ULLENSVANG: I'm not sure exactly. They seem to me to be pretty low on the chain. They were not vertebrated animals. They were all invertebrated that lived either in the muds or free swimming, but they were small animals. Plankton would be an appropriate sort of degree. And many of these compounds are not ones to have thought to be cumulative. And these are for petroleum products not DDT up in the food chain.

MR. O'HARA: Both the Park Service and the Trust are comfortable with the numbers defined by the Army?

MR. ULLENSVANG: I'll speak for the Park Service and we were fully involved in that process of observing the tests, and we are comfortable with the numbers.

MS. REACKHOF: As far as I've been working with the Regional Water Board and D.T.S.C. we have found that what was done prior to the Trust taking over, or while we were getting under way, the work was quite extensive and we support the numbers that were chosen.

MR. O'HARA: Thank you.

MR. BERMAN: To follow up on that because I don't know what that number 1.2 means. Can we isolate it by itself? Is there a standard for petroleum in drinking water?

MR. ULLENSVANG: I don't know. I know one of the things that controls drinking water for Putnam (sic) is the taste and odor. And so I'm not sure if there is a drinking water standard based on a aesthetic issue.

MS. VILLACORTA: No, there isn't a criteria. There's only a taste and odor standard, and I'm not sure what that standard is off the top of my head.

MR. BERMAN: It would be nice to know a relative number. The absolute number of 1.2 may be perfectly okay, but as a community member I don't have the expertise to know whether that's good or bad, and I accept your technical and professional opinion on that. But it would be more comfortable from a layman's point of view if we had something that we're sort of used to like soap. If we put it on our hands and faces and many soaps are made from petroleum products, and if we knew for example that the parts per million there and it was like 50 and we'd say well you know the 1.2 is really low, you know. And so it would be useful for our education as to non-technical people to have a relative.

MS. VILLACORTA: Yes, I can give you a number that they defined for Treasure Island, a similar assessment that the Army defined. They came up with a total number of 1.6 parts per million of TPH for all ranges.

MR. FORD: That is including all oils.

MS. VILLACORTA: Motor oil and gasoline 1.2, which was for gasoline. So the other one is a little bit more conservatively, but it was somewhat similar.

MR. BERMAN: I didn't quite understand. This was on the basis of again plankton-type receptors?

MS. VILLACORTA: Yes.

MR. BERMAN: That is just one number for one species of which we don't really have a relative feeling. I don't feel that answered my question. I would like to take some common substance that we deal with

that we know has some petroleum in it and find out how many parts per million it is just to give you a comfort feeling of what the number means. And this is not to imply the analysis is incorrect. I just feel it would be educational and useful from the community's point of view to compare the 1.3, 1.2 parts per million to a common substance like beer. Instead how many parts per million in something like that.

MR. ULLENSVANG: I'm not sure. We can tell you what the petroleum levels in beer are but I am not sure what the levels are in drinking water.

MS. VILLACORTA: I can get some more information for you in terms of taste and odor thresholds. I think they may be close to -- I don't know, but I can get that information for you.

MR. KERN: Tracy.

MS. WRIGHT: I have two questions, just clarifications. In the beginning of the meeting you showed the seeps being just as you said southwest of the boundaries. I understand it to be that that was in low tide, so isn't it true that during high tide it actually does come within the actual perimeter?

MR. FORD: Under water high tide actually rises above the standing groundwater level.

MS. WRIGHT: Thank you. I know you can't -- the specific question -- I'm a little bit confused about that. You say that after five rounds they found basically below action levels. What leads you to believe then that you found, the possible source that you've identified, the possible source from that area if it's all below action level standards?

MR. FORD: It's not all below -- the whole Commissary area is not below action level. The actual groundwater that is seeping out on the bank as you move southward from the marsh bank, the groundwater concentrations that we've measured get higher. And some in fact, some of them do exceed the action level. The groundwater that is back in the ground not yet entering the marsh exceeds the action level. There seems to be an attenuation process going on where groundwater that in Commissary area has higher petroleum concentrations either through dissolution or biological activity. Those concentrations are reduced by the time the groundwater comes out in the marsh. So if you look at the whole picture, the concentrations of gasoline decline with distance from the Commissary. And we're measuring the distance that the seeps are -- we're getting about a part per million, but if you go back up grade toward the Commissary the groundwater concentrations get higher.

MS. WRIGHT: But you are content you found the source?

MR. FORD: I think we have. It's the north parking lot of the Commissary. If you look at the historical use of that area the Army was very busy in that piece of property. They had a number of different buildings, all of which seemed to have either fuel dispensing or auto shops, or we know until 1945 there was a 15,000 gallon above-ground storage tank used for gasoline that sat on the side of that parking lot.

And in our test pits we found quite a few sections of pipe that we think are probably gasoline, or fuel, oil distribution pipe. Some of them are just cut off. They are stub ends that we find in the pits. So what I'd say is we're very content that the north parking lot is the source of the gasoline. I also think the north parking lot should really be thought of as kind of a collection of small sources all in confined area. We're not going to be able to put our finger directly on the source, X marks the spot. This is it because 15 feet away if we dig we may find something else.

MS. WRIGHT: So sounds like it may be complicated then.

MR. FORD: In terms of dealing with the seeps all of this action is happening in a fairly confined area so that lends itself to some kind of relatively simple solution. One of the things that is complicated in that area is that there are a lot of live underground utilities some of which are well located and other ones are not located as well as I would have liked because we hit some of them.

MS. WRIGHT: Yes, I heard about --

MR. FORD: Oh, you heard about that?

MS. WRIGHT: -- hitting the water line.

MR. FORD: One of the things we found was water, a lot of it. We hit a water main. So I would say that remediation activities in that north parking lot is complicated by the number of utilities that are there, but there are a lot of other things that make it not a bad place to work. There's no building in the way, right now the contamination is fairly shallow because the groundwater is close to the surface. So you know it's a place where something could be done.

MS. WRIGHT: Okay. Thank you.

MR. KERN: Any other questions? Peter?

MR. FORD: This is the second part of my story, the Building 637 O.R.C. injection of oxygen released compound. It's a patented compound that is mostly magnesium hydroxide injected into the ground when the groundwater saturates it slowly into the groundwater. That oxygen helps the bacterialize the hydrocarbons and over time concentrations go down. In the last week of February and the first part of March we injected 2,650 pounds of oxygen released compound into the shallow ground in the Building 637 area that was done by injecting roughly 26 to 27 pounds into each of about 95 different holes that were marked out in a grid at the job site. And what this represented was the last phase of the corrective action plan activities for the Building 637 site.

So what's left to do now is to observe the quarterly groundwater monitoring results and see if the O.R.C. has the effect of improving the groundwater quality downgraded. So that is what we will be doing. We have a few pictures. The oxygen released compound comes in bags or buckets. It's a white powder and you can see the technician here dumping it out of a bag into a bucket, and in the right hand picture he is mixing it up like a can of paint. He is using a little mixer, a little paddle-wheel that goes on a shaft and is run by hand and that's what it looks like. It looks and acts like talcum powder except we inject it into the ground. It spreads out and releases oxygen into the groundwater. This is a shot of the drill rig. The Geo (sic) is a relatively small drilling rig. It hammers the pipe into the ground. So in this shot they are putting the probe in. They actually hammered it down about 7 or 8 feet then pulled it back up a foot so there is a space below the bottom of the pipe that they can start injecting the O.R.C. into. And the O.R.C. is mixed with water and because it was runny this was done with a concrete pump. It was pumped into the ground and they moved on to the next hole. That's the O.R.C. story. Does anybody have any questions?

Thank you.

MR. KERN: Thank you.

MR. NELSON: Next we're going to be moving on with additional information about what's going on right now at the Presidio. Our consultants with Albert Chow (sic), who you've heard us speak of many times before this, has been involved in the Feasibility Study a long time. We have sat here before you many months and talked about the process and now we're finally here with Michelle King and Andy

Safford to discuss both the process that we're going to go forward with, and a reviewed of the sites and also parallel process at the Public Health Service Hospital where the Trust has elected to remand that the Army completed in 1995. And Andy is going to explain that when Michelle is done. Please be nice to them.

MS. KING: Thanks, Chris. One of the things I guess I wanted to let the RAB know is that in putting together our team --

MR. NELSON: I forgot to tell the team.

MS. KING: -- for looking at the Feasibility Study. A couple of things, we added a few outside firms to our team to help enhance our project to you. And one of those is an expert in landfills and geotechnical issues, a lot of landfills, installation sites, as we will as the steep slope issue at the Baker Beach sites. In addition we have a construction contractor who is going to help evaluate cost estimates just to make sure we're grounded in some sense of truth when looking at it just to have some input from someone who does real world work like this on a daily basis. So those we have. A few other team members spend the time talking about that. Just so you know there's really more than Andy and myself, but we've added some expertise that was needed. What I'm going to do is give the overview of the approach that we're going to take to the Feasibility Study and then Andy will follow by talking about the Feasibility Study and what we'd like to do. Each of us will take questions at the end. I understand if you are averse to interrupt and ask a lot of questions because there's a lot to see. It might be easier to sort of address things at the end. With the approach to the Feasibility Study the first thing we wanted to do we put together a work plan that is available in the Trust Library. I think there's been a couple copies sent to the regulatory agencies, and so the work plan lays out a local map to prepare and improvise on a Feasibility Study. It actually takes it all away to prepare for RAB, which is the decision document. And so that's available. It has a schedule in it at this point, and we have a actual schedule on the wall over on the poster board over there. And just briefly the schedule that's included in the work plan and that I'm going to talk about today and Andy is going to talk about little bit aren't really set in stone. If we can accelerate things we will. A lot of areas take longer than other areas. That may help as we will. So first what we need to look at what are the sites that are included in a main installation. If we all go back to the Army's Feasibility Studies there are a lot of sites included in it, and many of those sites have been addressed elsewhere already. For instance we have lavender colored Crissy Field, RAB that were in the ORI. There's the DBA sites, there's Coast Fiord (sic) bridge, direct sites. All these sites either have been addressed by their own decision documents or are being addressed like the Coast Fiord. These are ground sites that are the main installation sites. And

then there's these few site maps and Lobos Creek that are this reddish color that are going too really because of they're proximity to that area. And so there's a table in the work plan that really delineates ORI and then tells you where they're going to be addressed or where they have been addressed just so everyone is on the same page sort of what's in this document. Now an overview of the process. I'm going to talk about really six main receptors that we've identified to move forward and prepare this Feasibility Study and I'll talk about each of the steps first of the chemicals of potential concern. And I can actually in hearing all your questions, I can see we do need more investigation here or there, you know. What about the Hexidental (sic) chromium study that the Army did? The first stuff that we have to do is making sure we're looking at as complete a set of data as possible. RI data, monitoring data for example EPA collected a series of data at certain sites through their NEIC group we have tried to make sure we've come as close as possible in understanding the sites. And the step of using potential chemicals of concern, you take a few days and you look at all the chemicals that have been detected and winnowing some out is a sort of guidance that helps you through this process of really trying to identify what is a potential chemical of concern at these sites. And things we'll do is screen against soil for metals and so forth. So that's the first step is what are the PCOCs? The next step is to derive clean up levels that will be in the human hands and the environment. We're all to protect human health and ecological populations and throughout the RI and FS process comments and concerns that they didn't adequately consider such as reuse. And they were comments that the recreational protection of recreational users and so on and so forth. Not only are we going to consider those comments and reuse the Presidio updated guidance that's out there set in the alternate remedy document. And those are certainly a good basis, but even in the two years since that document was prepared there's been a lot of state update on the various toxicity criteria and other guidances regarding from EPA various exposure at surfaces. And we actually came at this with a team approach from Harding, Loftus, and Associates to help us because she did a lot of work in supporting the Park Service action in looking at the development. So she was definitely a good addition to our team. In response to your comment we're going to look at some of the regulatory standards like the drinking water standards and air quality. So we will take together clean up levels that will apply to different types of uses at the Presidio and then once we have a settlement of clean up levels of concern we now are looking at what our actual COCs are at the site. And so this stack is really where we say okay, let's take the site Nike Swale and then we would compare to those clean up levels to try and identify what the chemicals of concern are. And so once we have the list of chemicals of concern we can then rate areas of concern within each site. What do we need to clean up at each site? And then once we have that understanding then we move into looking at the technology and how we are going to do the clean up. And this first step is going to sound weird. It's a hard one to explain, but you're looking at different types of technologies that could be applicable to a specific type of screening technology stuff. And if you have metals of

contamination in soil there's many different types of things to clean it up. You could dig it out and dispose of it someplace else. Total remediation had been considered at one point by the Army. You can do soil washing. You can do capping, and so this screening step is necessary. You look at all these viable alternatives and widow it down to just a few alternatives that would be appropriate outs. The EPA has presumptive remedy documents and what these presumptive remedies are is for certain types of contamination sites, actually metals in soil they have recently gone through this screening process by looking to see what's been done throughout the country at these types of sites. And so they've already widowed down some of the remedies. And we're not going to propose to use that presumptive remedy to just ally it to the FS. This process takes away a lot of remedies that would not work for the unique sites of the Presidio. However, the presumptive remedies we feel can be a useful tool so we don't have to look at every technology under the sun. We can streamline the process and make it a little faster to get through. After we screen the technologies we are then looking at remedial alternatives. And this is where we now go to each specific site and determine what's potentially appropriate remedial action. So we'll lay out a range of alternatives let's say for Landfill E. Could it be excavated with off site disposal as with recycling capping, capping with the soil cap. And so you lay out this range of alternatives and then you screen these broad criteria for just general effectiveness, implementability, and cost estimates where you don't have very details. So cost estimates and such -- and so the idea here is you don't want to evaluate completely like six or eight alternatives. You want to focus it in again to try and streamline the process and this is a standard step in the approach of doing an FS. So the last step is what you have is widowed down to a set of alternatives for each site and a detailed analysis of alternatives. And this is where you have to follow these nine criteria in the National Plan, which is really, it's the document that -- or like the super fund program is implemented. And so rather than leave these nine criteria we are looking to make sure the appropriate protective of human health and the environment is done. And it's consistent and you locate an alternative first two criteria, and then you start balancing things out with looking at cost effectiveness, long term permanence, and all these long term criteria. And so each site has its selected remedy and with that then you can move forward with the remedial action plan and start your clean up. So what I've laid out here is an overall timeline. And as I said before there will be a more detailed schedule that really lays out the steps, but we want to give you a flavor of what it's going to take to get this document done and how we're going to try and involve the regulatory agencies, and the RAB. And the process of regulating this document -- let's see this is the middle of March and with these various milestones in the future -- we will be submitting various proposals that we're going to give to the Trust. Draft submittals and draft feasibility is going to be given to the Trust on or around August second.

And so once the Trust has a chance to review it and make their comments and the Park Service also reviews it then these various submittals will be available to the RAB and to the agencies. So the types of things we are looking for are what are the potential chemicals of concern? So you will have an opportunity earlier on. So the focus is by the time we get down to August, mid September -- if you look at the schedule when RAB will be getting the document we hope you've seen the main pieces of it and you will find no surprises in it. We'll work through a lot of different points and it will be a done deal. Whether you get the FS in September is another thing. I'd like to point out you have to obtain predesign data. Some of the questions that you had earlier about, you know, some of the sites which really made -- one of the steps we've realized is necessary is before we can actually start using the remedial alternatives at some of these sites where there are no data available, programs such as Nike Swale where the army didn't collect any data. So we really don't know what type of remedy would be appropriate because we don't know if there's a problem there. So that's a site that we've targeted at this point to go out and collect some samples before and during this FS process. And so the idea is to have data back by sort of the mid to late June to help us with the Feasibility Study. And Baker beach, that's another site. Baker beach there is no data from a seep. How do you know what's an appropriate remedy if there's really surface water coming back? So that's sort of the general timeline. And now what I'd like to do is talk about how we're going to really involve the RAB and the agencies in the FS process. And what we see here, we have the same timeline -- is the RAB meetings. Really we see this as a place to give everyone updates on where we are and make sure the group as a whole feels informed on the process and has a place to express their concerns. And so here we are today with giving you an overview of the FS approach. The next step is chemical screening. And what we'll be doing is processing them in May. We'll talk about our clean up level development and what we're hoping to accomplish. At that point we will have had some leads, concerns will be addressed with specific assumption and stuff. And come June the approach to evaluate remedial action alternatives at the sites will give you a sense of what goes into that evaluation cost estimates. I know that looking back at some of the FS concern the Army seems to pull numbers out of the air. So we're going to try to give you a sense of where these numbers are coming from. And then in July -- we won't be finished with the document by the July meeting, but we will be fairly far along in some of the evaluation alternatives. Some of the actual sites we can work through the evaluation with you guys. Then at the RAB committee meetings information will be interchanged with at working group meetings. We don't really know at this point the structure of how we're going to work through each of the sites. We will meet with the various RAB committee members and get input on each and every one of the sites of the Presidio. And so the first step is really screening the potential remedial action alternatives. So predesigned studies where data is essential to trying to understand what type of remedial action may be appropriate, or like Baker Beach and Landfill 3. Then we have a lag, but the idea is once we get the data

back and we narrow it down to the alternatives, and then at the end of July we will be release the final alternatives of evaluation. In parallel we'll have technical meetings with the agencies and the Trust definitely wants the RAB community members to know they are going to be welcome to attend these technical meetings. There's just some important issues that need to be discussed with them, assumptions that we're going to use in determining the human health ecological environment and have to meet with actual various specialists of the D.T.S.C. And then the last one will be really talking over various and other regulatory agency criteria. So hopefully talking together -- I really wants to emphasize this is a process we want to work through together. Now in closing my last thing is to talk about the road map to get to the remedial action plan. There is this Feasibility Remedial Action Plan. It is what's called the decision document. This is where the remedies are signed onto at each site. The remedies and clean up levels are in this final document and have to implemented for each of the sites. And so you can't start cleaning up the sites really until you get to that end point. Here we are in March, April is what we're talking about making it to that end point -- a year from now being able to implement these remedies. So it may be possible when I started my talk to say that if things are going fairly smoothly throughout the process it may be we may be able to sort of streamline the remedial action plan and move it up and start preparation of it earlier on so we can actually be getting out there and start clean up earlier. So with that we are certainly looking forward to working with everyone and I would like to hand you over to Andy.

MR. SAFFORD: I just want to take a minute to discuss PHSA water main because by and large is falling on what we're going to do. And the PHSB ROD amendment (sic) will improve landfills and also bring in and create that process. So what I am going to show you here is again is essentially what is in the ROD amendment, the same sort of procedures that Michelle talked about. And what we're going to do is we have new alternatives at these different sites. In the document we're going to do the 9 criteria analysis and then we're going to prepare post-plan participation and comment period. And you know a lot of what's going to be going through this process, the clean up levels that Michelle talked about, will be the Feasibility Study process. I imagine that some of the technology is needed, and Michelle talked about the public meetings and the RAB meetings, and so on and so forth. I imagine we will look for the PHSB jointly. So that's really all we're going to say about the processes briefly. And there's basically two points I want to make about the schedule in that the decision document for the PHSB is essentially in the FS. What we're going to have is a basic Feasibility Study and a decision document for the PHSB.

And the last thing I wanted to point out, what we're trying to do is basically take advantage of the construction weather in the spring of 2001. And what we basically have are designs with the approval of

the PHS water are March or April of 2001 in the sites. So with that that's basically what I wanted to summarize. I think the processes are really quite similar.

MR. NELSON: Questions?

MR. BERMAN: Very impressive schedule that you are of putting together and I am hoping you can meet it. And we appreciate, speaking for myself and others, I appreciate your willingness to share at various stages this ongoing with the RAB. I think we're delighted to participate, but in developing the FS any to the last -- really success is sort of the devil is in the details. And one of the details that crops up in my mind is you can't go over the Presidio every cubic centimeter of soil and every building and find every possible potential contaminant. So there must be in this process and in terms of your schedule you must have thought about what kind we are going to accept for the sites that identified already. Are we going to pursue further identification, and at what level of what finite level will you finally decide that is acceptable? So I guess the part that is left out is once you find a site you say you're going to deal with it, going to be able to find the sites. So you know 1600 acres divided up into square inches of surface and buildings is a lot of area and body, and I presume you're not going to do one inch at a time. So there's going to be some level of desegregation that we will accept, and I was wondering I don't know if it's appropriate to discuss this now, but that's the sort of thing where the ultimate success of the FS in terms of what it does somehow has to be divided up the detail of this acreage of the Presidio itself?

MR. NELSON: Right. I'm going to answer that for you Sam. This process is following forward with the same sites that were done by the Army in 1995 to 1997. The intention of this study is to improve upon the Feasibility Study that the Army did and pick up where the document that was prepared for us in 1998 left off, which was we need to evaluate these criteria against the National Contingency Plan criteria. We need to look at where they're compliant regulations or whatever actions are required. Thank you and we're not going to come to the Presidio for new sites. This is a very focused Feasibility Study. We are only dealing with known sites in the Main Installation carried forward from those previous documents in 1989. The army did their first look at the preliminary assessment stage and many sites came out of that point. ERI, as Michelle had mentioned, EAH and Crissy Field were looked at in different studies. So this is a really very focused study not intended to look at new sites. And in terms of screening the actual chemical data was already in the database and reports. And we don't intend to go out and look for additional data. Does that answer your question?

MR. BERMAN: Yes, well it answers the question I would say in a bureaucratic way. It doesn't really. We had to deal with the kind of community concern -- what about this is going to be a satisfactory clean up to the Presidio if there are sites that still need to be investigated? Are those to be at some later time and another feasibility study done on those?

MR. NELSON: We definitely have plans to address all of the sites that are identified by the Army to us in their memorandums in agreement with us and the Park Service. So remember this just looks at that group of sites. And this is where we are in this process with the main installation sites. Parallel to that there's the Public Health Service Hospital to be dealt with. You're looking at approved remedies, and by next spring we're also looking at doing corrective actions. As I mentioned earlier we will be continuing to pull underground tanks with asbestos. In the buildings we're continuing to test the lead based point in soil around residential areas we have parallel to this. This is just a very focused look at these sites, and we're trying to wrap up these sites to move them forward. The firing ranges, Coastal Fort cases, and the like will be looked at, but that schedule at the back of the room that Michelle mentioned is just a subset of the overall schedule that was developed as per our consent. DTHC and you can there was almost with the amount of things that have to be done and that schedule in itself is even more aggressive than the Feasibility Study. So we don't intend as we have discussed in the past -- this is just one particular set of sites.

MR. BERMAN: That's very reassuring.

MR. KERN: Tracy.

MS. WRIGHT: I'm curious about the role the 1998 document will play, if any? Does it carry any weight in decisions made for remedies, whether you will use it as a guide? In most cases I understand that you'll be comparing it to changes in the last couple of years. What do you amend the role to be?

MS. KING: We put that document together. Part of it was really illustrative to the Army and serving as a tool to identify sources. There are other alternatives out there that really could be clean up for the Presidio and part of why we are saying chemicals of concern, we really didn't have a full database. And so we really need to make sure we're looking at what are the chemicals of concern at this site and try to make sure there's a new document. And the Army's background with the shale study and so on and so forth, there are tools that are out there. We really need to make sure -- so in some sense a lot of that information we're not going to go landfill to landfill, for instance at this point, because that was a big effort in and of

itself. At this point whether something differs by a few thousand yards -- at this point we are looking at a remedy. So we will be using it, but it really didn't go through the full alternatives. Our particular goal is to go back to the data and making sure we're looking at the complete picture.

MR. SAFFORD: We had to make sure with the Commissary because we really didn't have much data ever. We made the assumption that we really don't have any data to support that. One of the things we are going to do is go back and get data on Baker Beach, Nike Swale, and Grade Area 9. We are going to take groundwater samples basically to access the impasse that is present. We were in some ways -- I think it's appropriate to the investigations and to the installation sites PHS.

MS. WRIGHT: Sounds so ambitious. It sounds very exciting. I want to understand to what extent the remedies that were set out in those documents might be followed or something might come up with the same conclusions, but not necessarily?

MS. KING: As with Nike Swale, you have to go through the full evaluation of alternatives.

MS. WRIGHT: Which makes more sense actually to plan. I just wanted to understand. Thanks.

MR. MCKLEROY: We wrestled with the concept of presumptive remedies brought up either by EPA or other sites. I know that we in the RAB did wrestle with those and frequently we did find that they were protected enough for this site. And I don't know whether the concept or presumptive remedies has changed in the last two years as well, and whether that's also more fine tuned. But it seems to be a very broad-based approach that didn't really fit in well here.

MS. KING: That's why I brought it up that we intend to use it at the technology screening step. We're not going to use it just for Landfill E. We're going to go with the presumptive remedy overlooking the environment of the Presidio and just to that conclusion.

However, there are parts of it that can step -- and I'm thinking of like the metals. One in particular -- there's a lot of technologies out there that are not cost effective, especially when you get down to the size of the sites that we have. So that remedy may be a useful tool to screen out a lot of the technology around, and we don't want to spend a lot of time looking at technologies that are looking at preventative measures. We really haven't been -- we don't want to spend a lot of time in the revised feasibility mediation, or some

of these other technologies are emerging, presumptive remedies' study. Basically, you know it's either capping or excavation. So we need to look at those technologies and look at actually working them. It is a theoretical issue if that sort of helps.

MR. MCKLEROY: Are those -- where can we find those presumptive remedies as they stand today?

MS. KING: You can find that on the web site, right?

MR. SAFFORD: Yes.

MS. KING: Yes, the metals one is new. The landfills has been around a while, and that hasn't really changed remedies, containment, or capital. So that's one of the select, but they've gone through sites, stabilizations, and other types.

MR. ULLENSVANG: We all have a fact sheets usually and generally those are available on the web site, the EPA web site presumptive remedy section. In their web site they have a pretty extensive series of pages.

MR. MCKLEROY: All right. Thank you.

MS. CHOW WINSHIP: Alternatives, you said they're evaluating against nine criteria. Will you be detailing those criteria that you evaluate? One of the things that we're talking about is whether cost is one of them? How are you going to provide cost alternatives?

MR. SAFFORD: Yes, basically what Michelle said first when technologies, and for instance like you may see that the capping or excavation will work for some. And a lot of the smaller ones, you know -- you basically have three broad materials: inability and cost. But you only need to interpret those in a way. Sites capping would be the presumptive remedy, capping sites. And what may be effective and cost effective are different. They are probably not implementable at the scale that we're talking about -- soil in trying to track and monitor all those sites is probably very different administratively. So we'd at that stage consider capping, but we might move into excavation and if that's what we decide we would detailed under the nine criteria and cost would be one of them. Michelle and I have defined cost as we go, but we have also consulted construction contractors to make sure that the real world costs are actually comparable with estimates. So we consulted with experienced as opposed to theoretical numbers value.

MR. KERN: Any other questions?

MR. YOUNGKIN: I'm just curious about the planning areas and how the planning areas sort of fit into the process. I noticed some of the sites have moved from one planning area to another; is that significant?

MR. SAFFORD: If it has --

MR. NELSON: If you talk about Mountain Lake being taken out of its PHS.

MR. YOUNGKIN: Moving from east housing to the Presidio Forest?

MS. KING: Presidio Forest.

MR. YOUNGKIN: I see.

MS. KING: That one -- I think it's where it fell within the boundary.

MR. NELSON: There won't be any different looks for the clean up levels.

MR. YOUNGKIN: Not bound together for any particular reason?

MS. KING: No. We use the planning areas as just a way to advise some geographic basis, groundwater basis, or whatever. So it's a different way to slice the pie. And at this point I'd say we're not necessarily wet in the approach by planning our --

MR. YOUNGKIN: There are a lot of new areas, east housing and others.

MR. NELSON: Based on the GMPA.

MR. SAFFORD: That's why we did it that way, to give a document for reuse.

MR. YOUNGKIN: Thank you.

MR. KERN: I have a -- one of the things that has stuck with me from my experience with the Army and I was really glad you mentioned it, the assumptions with the risk calculations. And part of the difficulty for me was when we got that document out. On the other hand, it was going through this volume, and this volume, and there are appendices and everything is all over the place. So it will be really kind of a neat thing to see this widowing process logically screened out. And I recall for El Polene (sic) Spring it took a while to actually determine the square foot area that they were considering. It was a little three by three foot area, which was part of the reason in the calculation it got screened out. So that will be something interesting to look at, how it's presented. And we might have some suggestions for how that gets presented. Just a comment. Any other comments?

MR. MCKLEROY: Well, one more while we're on the subject of the history of that. What one of the compromises that I thought would be affected with the Army is on the agreement that they would make the use more throughout the base on a residential basis rather than recreational basis, which is more stringent. And then there was a construction worker risk assessment, which you know was, of course, much more stringent. But the recreational use was a bone of contention as far as where the numbers fell out on that. And I wonder if it sounds like you're going to reevaluate that in its entirety. And I recall, I think even in your alternative document that you addressed that, and I was wondering if that was going to change?

MS. KING: I was -- we are planning on for the clean up levels following a very similar approach to what we did where residential potential and sites that are literally right next to or on top of residential areas. The Presidio recreational number is more appropriate than residential. So we will have a set of clean up levels with, you know, maps that will go with it.

MR. MCKLEROY: Okay.

MR. KERN: Any other questions at this point? Thank you very much. Looks like this would be an appropriate moment for a quick break. I think we have set up the next computer, but it still would be a good time for a little break. We will do our community presentations after the break. So we will have ten minutes. We'll be back. (Off the record 8:30 p.m.) (On the record 8:42 p.m.)

MR. KERN: This is a very important step for many of the RAB members and we want to thank the Trust and the Park Service regulators for giving us some time this evening to make these presentations. Just to give you a little bit of background, there are four working groups that have been put together to work on these main installation sites and to begin the consensus process that will pull all of this together. We began this several months ago and have been working steadily to better inform the groups, get the groups together, and begin to review the sites. And I'd like to say at the beginning that we had a lot of very helpful assistance from the Presidio Trust and the Park Service. We had staff members come out and come to the working group meetings on several occasions and they really came out above and beyond the call of duty, and we very much appreciate that help. So I want to thank everyone for helping us. And before we start, each working group came at this problem a little bit differently. So you'll notice the presentations may not seem like they're coming from the same person, but that's because each group kind of honored the way they wanted to make their presentation. I should also add one more caveat. None of the groups actually had a chance to rehearse the presentation. Most of them will be giving their presentation for the first time tonight and although they have identified all the important points. We expect you to fire away at us and grill us because it is likely we would grill you. Each working group selected a spokesperson. We'll go through this and identify the various group members and they'll support the spokesperson as we go through. The presentations may or may not include any of the above items, Army recommendations, the suggested remedial alternative, and other points of community members that they wished to bring up. That was a guideline that we gave folks when we started. Again I'd like to acknowledge everyone that helped us and particularly the community members who really put in a lot of time working on information that's fairly technical, and coming up with some pretty interesting recommendations. You'll have to forgive me. I am kind of a Power Point freak, and so I have a few little maps coming through. I have fun with it. So this is the way we broke down the different sites of these areas. Tennessee Hollow, Fort Scott, Lobos Creek, and the Coastal Bluffs, and that's how we'll go through them tonight. The first group is Tennessee Hollow. The group members are Jan, Kathryn (sic), Rafael (sic), and Scott. A lot of the group members got together and came up with some pretty interesting ideas. I'll be sort of running through some things. I guess you would characterize this group as still actively involved in reviewing technical data. So we're not going to present any final conclusions or anything like that tonight, of course. On the overview map these are generally the sites in Tennessee Hollow, and coming in from the north the contamination sites that we will be talking about tonight are Landfill E, Fill Site 1 right here, and Fill Site 2. This extended area is the larger, fine area of Fill Site 6, and then not necessarily contaminated in this document the Feasibility study, but just for reference 207, 231 site. And then where the Tennessee Hollow sort of overlays all those sites of interest where there is that sort of shimmering effect, I didn't do that intentionally. Okay. Fill Site 6 is this site right here in the orange. The

Army defined it was an area in this site, and EKI, and I guess other folks did some investigation of some documents and found potentially there was a larger area of silt that needed to be investigated. There's one portion of this that's particularly important given the relationship of Tennessee Hollow sort of planning area, and that's this part of this area Fill Site 6. Fill Site 6 is kind of a C zone. Here are a couple of photos of it looking to the south and then here is -- you can really get a sense of this area. This area used to be where a creek flowed through. So this thickness is -- all this is fill and of course we have got a little outline.

MS. WRIGHT: Is that the cap that goes on there?

MR. KERN: No. (Laughter)

MR. KERN: Landfill 2, Fill Site 1, this is a photo I am just going to for general reference in going through the Tennessee Hollow sites. The surface of Fill Site 1 looks like right now it's kind of curtailed around the area. Not too much grows on it. It's a place where a lot of people tend to walk their dogs. This is what the site looks like from above, and the fill area is sort of, you can imagine all that is where the landfill is. Here's a photo of Landfill 2. That kind of lobe in there is Landfill 2, and it actually extends across the trail. Here's a close and personal view of the road and landfill materials coming out of there. It's in here. And looking down on top of Landfill 2 from the sort of inverse point area, and that area in the middle is kind of where the landfill is. Moving on to Landfill E. These photos were taken on Saturday, just this past Saturday. So you can see there's some water. I took a couple of photos. One is in the upgradient side. There's a little area that generally fills up with water in the rainy season, and this one -- this photo on the left, this is actually on the uphill side and there's a downslope area here at Landfill E. Then downgradient the seep is running and so both of these areas were wet and water is going through those sites. These are the traditional surface seep measuring locations. This one is on the as you face the landfill down to the bottom of the landfill. This is on the right-hand-side -- actually this is backwards. This is on the right-hand-side of the landfill, and this one is on the left, and both of these are actually on Saturday were actually flowing with water from the seeps. Okay. We're going to go to Fort Scott now. And since Sam, you're the spokesperson I guess you can go from there.

MR. BERMAN: Okay. I think this is the Fort Scott area as Doug has shown here in green. One of the things about Fort Scott that comes to mind is that I think Jim Meadows called it the jewel of the Presidio, and so our group took that to heart. We wanted to look at what the proposed recommendation was to that

area, and to try to understand it as much as possible. Our group besides me is Joan, Matt, and Peter. So anything that needs to be answered will be. Okay. Here's the overview of the area. It contains a number of buildings. There's maybe seven or eight buildings, and a number of sites described all through here. It sort of extends from the National Cemetery to the central part of Fort Scott here where the green area. And the housing, the residential housing is around there. The cemetery is down along here, and the cavalry stables is around here. And in the area is also included some points further out. Here is where Landfill 4 is. And down there is Sewer Lid 1, which is also included in the general area of Fort Scott in terms of the boundaries that are shown. Okay. So here we go to the buildings that are identified in the report, and I guess this is -- we're referring to the main installation site report. And these are identified so it's these five buildings here that are sort of close to the central part of the Fort Scott area. Those buildings are 662, 669, and 680.

And then some large sites that I mentioned are the Battery, Howe Wagner. Would you go back for a minute? Here is the Battery, Howe Wagner is here just a little bit downhill from the main central part of Fort Scott over here. And those other sites that is to the north were the transfer station and Landfill 4. As Doug mentioned we, each group, had a kind of different perspective. One of the things that we noticed right away was look at the central Fort Scott area. There's actually eleven residential buildings and twenty-two other buildings right there around the main green area. So this is the very central part, not the entire area. And we noticed that only two of these thirty-three buildings were selected for remediation, and we presume that there was, in fact, some screening process that had been involved here. And with all these other buildings excluded because either they were looked at and they weren't relevant or in fact maybe they were left out for some other reason, but there was no information in the documentation we had about the screening process. And what about the other buildings here? I mention this only because in one of the nice maps that Ina gave us some of the other buildings are categorized as having a landfill problem, and they were not included among these two buildings. Here. These are the buildings which will come up in a slide in just a minute, but where in the central Fort Scott area? So our approach was to look at each one of the remediations that was recommended by EKI, and I think some of them were very nice. And in fact as an example there was a Building 1244. And this was a building that historically had printing and draining, and the recommendation by the Army said there was no environmental issues. And then EKI comes along and says there's lead and other metals there, and that the building should be destroyed and an excavation should be done. So I think this is an example of how I think we are pleased at the operations and the suggestions that were made by the EKI remediation. One of the areas that didn't seem to be so well dealt with is the Battery, Howe Wagner area, and this Building 662. It seems that various chemicals have been identified here. Some that have been identified are Chromium 6,

Biocarbonates (sic), asbestos, silver, and arsenic. And apparently the Battery, Howe Wagner besides being a coastal fortification site in the early days was used as a dump, and presumably that's how the asbestos got in there, and presumably how the arsenic got in there. And our concern was that the whole possible remediation sites -- actions rather, which were here to go with an excavation and to cap it in some way seem to be driven by the existence of Chromium 6 in the groundwater. And in view of these other identified chemicals the asbestos, the carbonate (sic), and the Soburb (sic) we would just be left with a little bit of uncertainty as to why the Chromium 6 played such a predominant role on the decision. And apparently the excavation, the complete cleaning, seemed to be driven by that. And it was puzzling. As I mentioned earlier there are some sites identified on maps, but not in the EKI document. These area are adjacent to Building 1236 and 1228. These buildings were not mentioned in the EKI document. So here is the Battery, Howe Wagner area, and it's interesting in one of the maps petroleum was identified as being in this area whereas in the EKI report, again there was no mention of petroleum as being one of the chemicals here. This can be just a mistake on the map, but we were not in a position to identify that. So we have an area which is surrounded by a road. Clean closure could be done and be made very accessible to the whole area in terms of the road all the way around it. So we didn't see any obvious problems, but being amateurs we probably didn't recognize some of the difficulty. The entire slum here is estimated to be 5,000 cubic feet. So it's something like 750 truck loads of excavation and doesn't seem to be -- again, from an amateur's point of view it does not seem to be an impossible task. Next, please. I mentioned these two buildings, which are not in the report of which are shown on other maps to have landfill around them and so we were curious about the actions there. Again, we may be caught up here in procedural problems in that these could be -- that certain sites were selected as part of this report, and certain sites were excluded. That information wasn't something we had in our knowledge based. So maybe we have come into this problem in the middle not having the full understanding of the background here in this case. I apologize for myself and the other members for not really understanding this. Here's some photos of the Battery, Howe Wagner area. This is the road that goes around here sort of green area. You couldn't tell that there's a lot of asbestos underneath that. Again another shot from another direction. It's all adjacent to a residential area, and presumably to be used for remediation and residents. And so there is a concern about a really efficient level of clean up here. This photo that Doug took on Saturday shows seepage between the sidewalk and the edge of the green of the Battery, Howe Wagner. And we see the water flows here and I understand that if you go out there today, of course, it hasn't been raining for several days and so this may in fact be dried up, but it's interesting to note that the seepage did exist on Saturday after all the rain. Okay. There's a few more of those large areas on the northern edge, which the Landfill 4 and the transfer station, all of which seem to be rather adequately dealt with by the EKI

discussions. For example, here's the shot of the dead trees around Landfill 4. This is to be excavated and removed and it sounds like a good idea from the community point of view. Thank you.

MR. KERN: Thanks, Sam. Lobos Creek. That would be Julie.

MS. CHEEVER: Will you point for me, please?

MR. KERN: Okay.

MS. CHEEVER: Well, our group has the Lobos Creek Watershed. So the next map would show myself, Julian, Ed Calihan (sic) who is not here tonight, and Saul Bloom who is also not here, but who has been very useful because he was a member of the Technical Review Committee even before the RAB was formed. So he has a long perspective on him, and Doug has participated. We've also appreciated Chris Nelson and Brian's participation. So, are you ready for the global view picture? We have a very, very varied area because we have three landfills: Landfill 10, Landfill 8, and graded area 9. We also have the Nike Swale missile site, and to the south of the Nike Swale we have miscellaneous buildings such as Building 1750. And we have two bodies of water: Lobos Creek there and another slide there is Mountain Lake. We can go back to the overview now. Also I wanted to mention as was mentioned earlier some of Public Health Service Hospital unit, but since that was going to be done just about as quickly as the Feasibility Study revision -- they're all very, very helpful. Landfill 10 has the distinction of being the largest landfill in our area. EKI's estimates are that it is now 240,000 cubic yards. The Army's original estimate was 42,000, but EKI's contour maps from several decades came up with this larger estimate. To show you the orientation we're going to show you as you walk into the area on 15th Avenue to the Public Health Hospital, being the dominant structure of this area. So it's over to the left. On the parking lot part of it, it has this extremely steep slope underneath the heliopad. I guess we see the little top of it, but also a great deal of it is under the parking lot paving. Quite a large extent of it is underneath the paving. It supposedly was construction debris from the Merchant Marine Hospital, but the kind of policy the Army had with recycling -- they still found arsenic, copper. And one thing that's of great concern to those of us who care a lot about the native organisms here is that Chromium 6 was found near Lobos Creek, which is part of the ongoing discussion where this Chromium 6 comes from. Whether part of it is a natural phenomenon, but that is a concern -- something that we have on our minds, something to watch out for. There is discussion of capping this landfill and some of the concerns or issues to this about coming up with the remedy are first of all, of course, protecting Lobos Creek. And one way that EKI has proposed in its earlier document is to do this by monitoring this a little better by adding some more wells. I know that

in some RAB comments two years ago we felt they might not be deep enough? Another thing about this is whether to put on an impermeable cap as was proposed versus just the asphalt paving, which is under consideration now. Yet another thing we've thought about is the stability of this very steep slope of the fill in an earthquake situation. And finally we have one more slide. There is discussion about the fill in order to stabilize it in case of an earthquake situation, but one thing we have aesthetics. Because if you approach it from the west, and this is the boardwalk that the Park Service and the Trust have put in the Lobos Creek Valley, and it shows how you can look at this area as you're looking actually to the east toward the Public Health Hospital. And can you show a little bit of the Health Hospital? At any rate, since this is a part that's sort of been dedicated as a natural area we want to be sure that whatever remedy is chosen that it will not pose an aesthetically obtrusive risk. So the next one starting from the north is the Nike Missile facility, which is of course, one moved to the Public Health Unit. It's interesting to me looking at the Richmond district that a lot of people didn't even know that this existed, but it did. It housed some of the first surface air missiles that were developed after the war. And because these missiles had a range of 25 miles it was actually one of twelve such sites in the Bay Area, but it was manned 24 hours a day. And people were on very serious alert. It was in operation from about 1955 to 1963, and then it was no longer in operation. It was not needed any longer because the longer range missiles could shoot farther. So they didn't need this. So there were three underground structures called magazines that housed these missiles. And just to show you what they were like, this is a diagram the Army showed us at a RAB meeting a little while ago. This particular one was 49 feet. The other two had similar dimensions and including the elevator shaft. The elevator was what raised the missiles up to the surface. So it's a long, flat elevator. The total depth including the shaft was 22 feet. Elsewhere it is just 10 feet. And these structures were abandoned and some of us RAB members were doing research on it three years ago and we were concerned about it for a number of reasons. First, these are large empty structures that are closed by rusting metal doors, but what also might be inside them. And we discovered after talking to people at a similar site in Marin County that they probably still have a substantial amount of hydraulic oil and fuel lines, and that turned out to be true. There was hydraulic oil, flaking asbestos, and lead paint, but could we have the next slide? This is what a Nike missile was like, and there wasn't just one of them. There were several associated with each of these three magazines that we showed you. This is what you see at the Nike site now. These are the doors that are on top of them, and the Army has now pumped them out once and removed the hydraulic oil and flaking asbestos, and lead paint. But they are empty and most people think that they tend to fill up seasonally with groundwater. So one issue is how that communicates with the rest of the area. Secondly, in the Army's investigation there were things found in the soil or water such as arsenic, lead, selenium (sic), mercury, aluminum, and chromium. And I guess to the extent that those are there now -- I am not sure how apparent the structures are. What might be

communicating from the structures into the groundwater as a result of what was really a fairly substantial central Nike missile site that was manned around the clock. At any rate, this takes us to our next site which is the Nike Swale, a nature area just south of the Nike missile site. And one concern is what is getting into the Nike Swale. For example, there are drainage ditches on the east and west side of the storm drain right into the Nike Swale. Most people agree that the Nike Swale is one of the most obvious data gaps in the Feasibility Study documentation so far because as has been said, there is or was no testing whatsoever of the Nike Swale. And a member of the RAB who is now on leave was very interested in issues of wetlands and the social wetland here and how we are going to protect this. Additionally, the Nike Swale area has a lot of native plants, which I think is on the next slide. You can see there in that picture some of these are what the Trust and Park Service and the Presidio call vegetation. The management plan called existing plant communities -- I think these are precious because they are as they were originally. For instance, over in the east of it there's many live oak woodlands called EW. That's a little bit outside of where the Nike missile site is and then further west there's other vegetation and shrubs. So that's kind of special as well. So we heartily support the preliminary EKI recommendation of more testing in the Nike Swale, and that's something I think people will appreciate. Now we are going to go back to two landfills. There's one more picture of the Nike Swale. So next we have Landfill 8. Landfill 8 is the one that is directly north of the Public Health Hospital. And it's quite a large area as you can see. It's up near the tennis courts, parking lots, and other things. And EKI estimates it might be 52,000 cubic yards. And things have been found in it including things like Deldron (sic). And one thing that concerns us about Landfill 8 is again it is right near the Nike Swale. So that's something to consider there. There had been talk about excavating Landfill 8, but I think essentially there has been more consideration on that. We, in our group, were also concerned about the cemetery that is there from the former Merchant Marine Hospital. And those who were buried there were probably indigent seamen, or seamen who were taken care of in the hospital who didn't have any relatives. And to excavate the cemetery would be very difficult, among other reasons because it would be hard to contact any family who would be concerned about it. So, a lot of people are tending to think that maybe it's not really feasible to excavate the cemetery, but that some memorial should be placed there to the marine sailors. So the thought is that about what sort of cap to use. Either a soil cap or plastic cap somebody placed on top of it. And again our concern is that we have identified how to protect the Nike Swale and other nature areas nearby. Then we have graded area 9 as the Army called it, which is mostly across the street from the Public Health Hospital by the same side of the street as the Public Health Hospital. This was said to be mostly rubble and fill to make a soccer field. It is estimated to be 32,000 cubic yards, but this is another area -- this was taken during the rains about two weeks ago. This is another area that's agreed to be a real data gap. There are only five data samples with no analysis with regard to human health. And also as we in our group

were discussing it, and noticed how close it was to the Public Health Hospital and to the Nike missile site. We think this is another area where further testing is heartily needed. Now, we're back to these other sites. One is Mountain Lake, which has been the subject of a lot of discussion among the neighborhood people, and in which some chemicals such as cyanide, lead, and heptacor (sic) were found. Right now Mountain Lake is being studied for reevaluation thanks to a grant from the airport's (sic) convention. And Julian went to this meeting last week. Did anything come up from that that was relevant to studying?

MR. HULTGREN: Well, I'm trying to remember. I left early, but basically we were talking about remediation that we would be doing in consideration of the conjunction with what is coming from the airport in lieu of the airport's use of some of the wetlands down there. There are two basic propositions that they talked about and they are both under consideration. One would be to remove the -- some of the sediment that has settled on the bottom of the lake and the reason for doing that is that the lake is so shallow that it doesn't oxidize or doesn't contain enough oxygen, and it doesn't circulate sufficiently to keep the lake in good condition. So I think it's only about an average of nine feet deep. In connection with that or in conjunction with that, to supplement that, there would be a program to add oxygen. Possibly have a program to add oxygen to the lake. Those are the two possibilities, and they can both be implemented or either one depending upon what the experts decide is the best approach. Those are the most important things.

MS. CHEEVER: I think another thing -- just one more side of this. This shows the Trust announcement of how this project is underway. There is hope that improved use of environmentally friendly pesticides at the golf course may have a good effect on Mountain Lake in the sense that some of the chemicals found there may have been from very heavy use of pesticides before this when the Army was there -- in the previous era of the golf course. So additionally, our area has a number of miscellaneous buildings and the most important one is Building 1750. It's actually Building 1752. That's right next to where we have our committee meetings. But this was a motor pool area, and although it doesn't seem to have created a lot of hazards that are known, we think it is good to continue and perhaps increase monitoring there because of possible oil, petroleum, and other central residues there. EKI has proposed possible limited soil excavation there. And the final site in our area is Lobos Creek.

This is Building 1750 seen as you are starting to walk along the boardwalk up toward the Public Health Hospital. This is Lobos Creek, and I believe this is a view from the very same boardwalk taken either through or over the fence while standing on the boardwalk. And as you'll notice you'll only see a little of

its water because it's full off watercress that is very beautiful, which is a native vegetation. We are hoping that a lot what contamination may be in Lobos Creek can be solved by making sure that whatever is in Landfill 10 especially which borders right on the eastern end of Lobos Creek, is making sure that that doesn't get into the creek. And the same is true, in fact, with all of the areas -- all of the sites we have discussed in this watershed area. There also may be some issues related to storm drains, and possible communication with city waste water pipes which are connected with the storm drains coming out of the Presidio. And there's going to be a report on the later not related to the RAB or the environmental clean up, but that's another thing we should be thinking of. So we are going to end with another picture of Lobos Creek, which is the perhaps most important symbol of our watershed area. That's all.

MR. KERN: Thanks, Julie. Let's move on to our Coastal Bluffs group. And Bruce will you be doing that?

MR. MCKLEROY: Thank you. I'll be fairly brief. I see the meeting as going on kind of late, and likely our area is rather simple compared to some of the others that we've seen tonight. Our group did have myself, Tracy Wright, Howard, Nathaniel, and Andy Young who were able to help us out.

MR. KERN: Bruce, I should mention that I've put a few pictures into this so you can see them.

MR. MCKLEROY: Oh good. Okay. We also did have a couple meetings where Chris and Brian came and we based a good deal of our discussions on the alternate remedies document. This is the overview of the Coastal Bluffs looking -- that's oriented northward to the top. And going from north to south you have your various sites. The top site there is Disturbed Area 1A, which is a tiny dot, and then you have right below that Disturbed Area 1, Baker's Beach. So Baker's Beach is Disturbed Area 1, and then down below that is Disturbed Area 2. And following that you have Disturbed Area 3, and then we have below that the roadway. That crescent shape is Disturbed Area 4, and for a change of pace we have Fill Site 5. So why they are fill sites or disturbed areas has to do with their volume. All of these areas seem to be put in sort of natural hollowed out areas. It's a very steep bit of geography there particularly in the northern two sections. Those two areas are extremely steep, and I think they were attractive as dump sites because you could back the truck up there and it would go away. All the contents of your truck would disappear. Also the sense that we have developed in the group too was that because of the characterization of what's in those sites, they appear to be sourced from some incineration or incinerators. There is a fair amount of ash and building debris, and concrete seems to be fairly consistent with particularly the --well, with most of them I think possibly with the exception of Fill Site 5. The alternate remedies, EKI's document, addressed each of these sites. The 1A is a very small dot that apparently appears to be some moving

material that has come off the top of the Battery, and there's some very heavy undergrowth there. And there is some conjecture about the size of that. So our hope was that the EKI, or that the document -- the Feasibility Study would at least address this further so that we can get more data on that, but it's expected to be a small area and easily closed. The remedy that seemed to be prevalent was called free enclosure, which Tracy did a great job of putting together this for me. Clean closure means that they are going to remove all the waste and residue and contamination from the area including contaminated soils, and remove it and put soil back in. The Disturbed Area 1 is fairly small. It's in a very steep area, and I think a problem with that is that although EKI's alternative remedy document spoke of putting in clean closure, which we agree with, we really have to see how to do that. And there are some chemicals of concern there that do drive that decision. And I think it's certainly worthy of dealing with in that way particularly because there are PWB (sic) issues, and it is directly above the Baker Beach area. Going on to Disturbed Area 2. Those are -- you can see there -- you got a great picture. It's tough to get down there. Our group met and we stood up on the hill a good deal of the time, but getting down there required some heavy boots and quite a bit more time. But you can see gravity was the dumper's friend, so the trash could be dumped and would go way down the hill. I think it could be closed and clean closed effectively. And it's not really that large of a site by normal standards. Disturbed Area 2 is even smaller and the proposed alternative is the enclosure on this. It does have an active foot path that goes along the site that is part of the Park County Trail. And there is a lot of pieces of debris that appear through there, and actually really appear to be dangerous from the hikers' and climbers' point of view. There again -- there will be some difficulty with effectively doing the enclosure because of the engineering issue, but I think it looks like a good idea and our group did concur with the EKI on that. The Disturbed Area 3 is an animal of a different kind. It is kind of different because we really can't tell the extent of it because of the natural landscape there. It also is in an area where they are replanting or restoring the indigenous plants, and dealing with the endangered plant species and so forth. So we do expect to have a fair amount of public use in that area and it's pretty large. So with the concept of putting in a cap there -- that is one of the alternates. What we have thought is that we really don't know what is there, particularly with respect to what's going on with the hydrology. And you know this year is a great time to deal with that. We've got some, quite a bit, of rainwater and we can take some samples out there and see what's going on at that site. The proposed alternative is to install a permeable cap except for the road section and use some ongoing site management and to keep the seep monitoring. But we don't have any effective seep monitoring at this time. So we really don't know what's going on and we'd really like to see this kind of collection going on during the winter season so we can see what we are dealing with here. The fact that there is a road there that's pretty accessible may indicate that a clean closure should be considered at least. Going on to Disturbed Area 4.

MR. KERN: I just might mention what this is of. The edge here -- you can look down. There's quite an edge off the landfill and there's more debris down below which is fairly difficult to get to. I have some photos from my excursion down there. Here's the face of it, and this is the face of it looking back uphill. And some of the debris that's piled there -- there is a bunch of timber, some more debris, and quite a bit of poison oak in there. There's a lot of water through this area. And you can tell by the calla lilies that it's pretty much permeating a lot of the site. Down below this is where the landfill is up here. And this is how the seep approaches the beach. It's running now. It could be sampled. And this is what the actual area looked like. The seep coming down from the landfill right about here, which is something like 30 to 50 yards. And the sand ladder that climbs up Baker Beach back up to the road is really right just down the way here a little bit.

MR. MCKLEROY: It's remarkable that the choice for this fill site is in the middle of a ravine. So there are certainly some issues of hydrology. So they have basically filled up the natural waterway. Going on to Disturbed Area 4. This is right along the edge of the roadway. It seems that there may have been some reason to dump there in order to stabilize the roadway. I actually got a picture from a review of Baker Beach in 1916 before there was a roadway, and it's a sandy area. So it's not unlikely that there may have been some erosion issues along that site. What the Army did discover in their investigation was that there were some chemicals of concern, particularly pesticide issues. And chlorinate (sic) has apparently a very stable presence there and doesn't move around a lot. But it's a very toxic chemical and there is some suggestion that they take hot spot excavation at this site. There again though is that the Army did not really characterize the site thoroughly, and so where the hot spots are might be quite an interesting game. Because of the size of it the game might be easier if you remove it all. So the objective for clean closure is for doing the southern and northern portions of it and sampling. As you know there may be a faster and easier way to do it. And that would be to do the clean closure except that you do have the issues of the roadway and some engineering issues there as well. Now Fill Site 5 is above Baker Beach Road. It's next to the war memorial area. It's a very wide parking lot at this point. It's reddish rock with some crushed rock on the top of it. It's 55,000 cubic yards. I've observed as a resident in this area over the years that that was used for tree stump removal. And you know they crush things there, but there's also some other chemicals that have been cited there in addition to the usual suspects including PCB chlorinate and zinc. And there is some possibility of it being unstable. The Army proposed nothing and EKI proposes clean closure of this site, which we concur heartily with. So that's pretty much where we are. We've got no buildings or anything exciting in our area, but we've got some very steep hills and I think we do have

some tough decisions on clean closure and we will have to review this probably and just get into the cost of that. What are the other aspects of the Coastal Bluff areas? That area A, which has a special timely issue that in the memorandum apparently it ought to be dealt with sooner than the other sites for the simple reason that the Park Service apparently was fearful that their funding wouldn't be there when this came along. And it may be too low a priority, but I haven't really heard much about that issue. So that's where we are tonight and I must thank Doug. Thanks very much. You've been terrific in putting all this together tonight. Thank you.

MS. WRIGHT: Thank you for getting the photos and for dealing with the hills. We appreciate that.

MR. KERN: Just a few conclusive matters. We're still working -- we are pursuing further investigations and we want to say we concur with a lot of the recommendations that were put forth in the original document, and we are certainly looking forward to live additional discussions. We want to welcome EKI to the effort and look forward to working with you and those other contractors that may come into the situation particularly with the Public Health Service Hospital. And again thanks to the Park Service and the trust for your support of our working group process. And that concludes the presentations. Thanks to all our working group members who worked hard to put this together. (Applause) And I guess we can just look at action terms for those should be forwarded on to Mark. So all agenda items for Mark. Let's see. What else? Any other comments? Then without objection the meeting is adjourned. Thank you for coming tonight. (Meeting adjourned 9:45 p.m.)

1 Tuesday, May 9, 2000

2 7: 11 P.M.

3 MR. KERN: Good evening, everyone. This is the
4 regularly scheduled meeting of the RAB. Welcome to the
5 meeting. I want to welcome the members of the Presidio
6 Trust, the National Park Service, the Regulatory Agencies,
7 RAB members, RAB community members, contractors, and
8 members of the general the public, and anyone that's here
9 without a particular interest. If you're from the public
10 we absolutely want to welcome you here tonight because of
11 your interest in this.

12 I want to mention this is a new room that we're in
13 tonight, and for people to help our transcriptionist, if
14 you could mention your name, and particularly try to point
15 your name tag towards her. That would be a big help.
16 Thank you.

17 Does everyone have an agenda? If you don't, I
18 think there are copies near the front door. Are there any
19 changes or modifications to the suggested agenda? Then
20 let's move on to committee reports.

21 MR. YOUNGKIN: Sure. We had our regularly planning
22 committee meeting on April 25th, and the majority of the
23 meeting we talked about the sampling plans that are up for
24 discussion, and review, the Public Health Service Hospital
25 and the Main Installation. So, we had a we pretty long and

1 interesting discussion about those. We got to ask a lot of
2 questions. It was a good opportunity for RAB members to
3 ask the consultant about these issues, and it was quite
4 interesting.

5 We encourage everyone to come to the next meeting,
6 in which we will be talking about similar things. I
7 believe we also had a brief discussion about membership
8 issues. We're working on some draft recruitment articles
9 for newspapers, and the public direction. And we also had
10 a discussion about the newsletter that's coming out. Julie
11 is working on getting a RAB update article, and Tracy is
12 working on an article for the Baker Beach sites. And those
13 will be out shortly. Our next committee meeting is
14 May 23rd. Thank you.

15 MR. KERN: Thank you. Any other committee reports?
16 Okay. Let's move on then, to Item 4, and Project Status
17 Update with Chris.

18 MR. NELSON: Thank you, Doug. Good evening. I
19 just want to start off by apologizing that I'll have to
20 leave at 8:15, and won't get to see most of Michelle's
21 presentation. Most of you know me. My name is
22 Chris Nelson. I am the Remediation Project Manager here at
23 the Trust, and I work primarily on CERCLA program projects,
24 including the Main Installation feasibility study.

25 And this evening we're going to be talking about a

1 variety of projects that I've been working on, along with
2 my fellow Trust staff members. The first thing on the
3 agenda for this evening is the Environmental Consulting
4 Service Procurement Process that's been ongoing since
5 earlier this year. We had interviews last week with ten
6 firms. It was a marathon week, going through 90 minutes of
7 interviews, and evaluations, and questions, and scenarios
8 with a number of very qualified firms.

9 And as of this week, we have established a second
10 short list, and we will be sending out notification to
11 those firms this week to get their final fees, and enter
12 into cost negotiations with those firms. We anticipate
13 that there should be three contractors on board by next
14 month.

15 And just to be consistent with how we've mentioned
16 these types of things in these meetings, since this process
17 is still ongoing we are not going to mention the names of
18 the firms to be discreet this evening.

19 We anticipate the first couple of task orders that
20 we will be working on will be both petroleum sites, and a
21 few of the CERCLA sites that are underway at this time.
22 We've also been working on the groundwater monitoring
23 request for proposals, and it's still under development
24 internally at this time, primarily with the legal and
25 contracts departments. And we anticipate releasing it this

1 month, within the next few weeks.

2 Unlike some of these other requests for
3 qualifications we've sent out, these include cost. So, we
4 anticipate when the proposals are released they will
5 respond to them rather quickly. And we hope to have a firm
6 on board by June.

7 Next, I'm going to talk about the Main Installation
8 feasibility study. As many of you have heard, the Work
9 Plan, which you all got a chance to comment on, became
10 final, and was approved by both the Regulatory Agencies,
11 and got the blessings of the RAB. And so that's been sent
12 out. I sent that out just a few weeks ago.

13 Also, there is a field sampling plan, as Mark had
14 mentioned, for the Main Installation sites. There are a
15 number of data gaps at the Main Installation. Before we
16 can make a decision about a remedial alternative we have to
17 gather additional data. At this time the Trust and Park
18 Service have commented on that plan, and submitted it to
19 the RAB, and regulatory agencies for their comments.

20 I sent that out, I believe the week of April 24th.
21 So, ideally we'd hope to see some comments within this
22 month, by the end of May. So, keep your eyes peeled for
23 that. The fieldwork should begin following the approval of
24 this plan. And we're looking in early July to schedule it,
25 probably the second week in July.

1 We have also been working on a Responsiveness
2 Summary for the Army's Feasibility Study, which was never
3 completed by the Army. And we've tasked our consultant on
4 this contract to prepare the Draft Response Summary. And
5 we received a copy of this this week. And when it's
6 completed with our reviews, and any revisions by E.K.I, it
7 will be sent out to the Regulatory Agencies and the RAB for
8 their comments as well.

9 I want to mention, as we have mentioned at past RAB
10 meetings, there are going to be a number of meetings with
11 the regulatory agencies and RAB to discuss some of the
12 technical issues with the Feasibility Study. One of those
13 is the issue of hexivalent Chromium in the soil and
14 groundwater here at the Presidio. And I'm pleased to
15 announce it will be next Monday, May 15th at our office at
16 1750 Lincoln Boulevard, second floor, 1 p.m.

17 Ina will send out an agenda to you folks about what
18 we will be discussing. One of those things will be
19 hexivalent Chromium, and it's curious presence here, and
20 how we plan to present the data that's been collected to
21 date by the Army, and try to figure out what we can do
22 about this issue.

23 Further, on the Feasibility Study, E.K.I. continues
24 to work on the screening of technologies, and the screening
25 of remedial alternatives. And these have been discussed at

1 the last few RAB meetings, both as an introduction of the
2 FS process, and in the last RAB meeting when we discussed
3 the data collection activities, and how that tied in. And
4 they've also been working on developing cleanup levels for
5 human health and ecological risk.

6 And tonight Michelle will discuss the progress to
7 date on that. And she's also going to give you a little
8 background on the concepts of human health risk assessment,
9 and how this process that we're going through ties in to
10 the Feasibility Study. We've also been working on the
11 Presidio-wide sampling and analysis plan. We have
12 currently received a draft sampling analysis plan from our
13 consultant, and we are providing comments at this time.

14 This plan, the sampling, includes both quality
15 assurance and generic field sampling plan that can be used
16 by all of our consultants and contractors to maintain
17 consistency in reporting. And this document will allow us
18 to collect data of known quality by following standard
19 operation procedures, and using the standards and methods
20 approved by the regulatory agencies. We will submit this
21 plan to the RAB and the agencies for their review once we
22 get a draft that is ready for that.

23 Moving right along, the Presidio-wide Contingency
24 Plan, I believe I mentioned this in one of my last few
25 meetings, this is a plan that I think will be well received

1 by a lot of people in this room. There has been some
2 concerns about unknown contamination at the Presidio, or
3 suspected contamination that is not included in some of the
4 investigations and projects that we're currently working
5 on. And there was a consent agreement that the Trust and
6 DTSC signed last year. And DTSC asked that we put together
7 some procedures to deal with unknown contamination
8 specifically related to Letterman Hospital, and its
9 decommissioning.

10 But we decided to make it a Presidio-wide plan to
11 deal with all of the areas where we may not know there is
12 contamination present. It has a relationship, this plan,
13 to the Main Installation Feasibility Study, and because the
14 cleanup numbers are going to be defined, they will be
15 integrated into this plan. And the procedures for this
16 plan will essentially say cleanup numbers for the Presidio
17 have been defined.

18 So, if we come across unknown contamination while
19 putting in some new water mains, or maybe digging up a
20 foundation of a building, and we find some contamination,
21 we know how to address this, and we know what levels will
22 be protective of human health and the environment. We want
23 to be consistent. We're going to hold a meeting with the
24 agencies to discuss some of the concepts in the outline of
25 this contingency plan.

1 And I handed out this outline to the regulatory
2 agency representatives here tonight, as well as our RAB
3 facilitators. And we don't want to overwhelm everyone. We
4 have a lot of meetings and reports.

5 The last thing is that George Ford could not be
6 here tonight. As you know, he normally talks about the
7 Commissary, and a lot of the other petroleum areas that
8 he's working on. We do have an update. As you recall,
9 back in November there was a gasoline smell that was found
10 at the north bank of the marsh here by the Commissary. And
11 we've been monitoring those seeps that were the cause of
12 that petroleum smell, and we received consistently stable
13 results, and elements anywhere from a half a part per
14 million to just below the action level of 1.2 part per
15 million.

16 Recently, as we had discussed in our last RAB
17 meeting, and our last bi-monthly meeting with the
18 regulatory agencies, we conducted an additional soil
19 testing investigation in and around Mason Street to try and
20 determine the source of the contamination that was creating
21 these seeps that had petroleum in them. We contracted with
22 the drilling company, and we advanced 30 holes into the
23 ground in and around Mason Street. And at this time we
24 don't have laboratory results in. So, we anticipate having
25 those results, and having had some time to interpret them,

1 and be able to discuss them at the next RAB committee
2 meeting.

3 So, just a reminder about the hexivalent Chromium
4 meeting. Again, it's 1 o'clock next Monday at 1750 Lincoln
5 Boulevard, second floor. And please send your response to
6 Ina by either email or telephone. Thank you very much.

7 MR. KERN: Thanks Chris. Our next report is from
8 Michelle King with E.K.I., human health cleanup levels.

9 MS. KING: Chris gave me a little bit of
10 introduction of what I'm going to talk about. Human health
11 cleanup levels in the soil is what I will be talking on
12 tonight. And, basically, what I want to do is give a
13 little preview of how the Trust is planning on developing
14 these cleanup levels.

15 And looking at some proposed methodologies in some
16 of this stuff that has been presented to the agencies.
17 This is the first time Henry's hearing it, from the DTSC,
18 so the numbers, and the approach, and assumptions that
19 you're going to see, they may say, "We don't like this."
20 But we want to make sure you got a flavor of how we're
21 approaching these cleanup levels.

22 Tonight we're going to focus on human health. And
23 there are also some key ecological cleanup levels. And we
24 thought this might be a little too much information with
25 these equations, and stuff; and your eyes might glaze over

1 if we really try to push both human health and eco into the
2 same meeting. So, I think for the next RAB meeting we'll
3 do eco cleanup levels.

4 Moving on, you have now seen this slide, I think
5 three times, the Feasibility Study process overview. And
6 we're looking at different remedies, which is basically how
7 we're going to ensure cleanup to protect human health and
8 the environment. And as I mentioned in the last slide,
9 we're focusing on soil in tonight's talk, and also most
10 likely next month will focus on soil. This is because the
11 EPA and the State have published criteria on how to address
12 human health in groundwater and drinking water to protect
13 human health. And then there's a sense to protect aquatic
14 life and organisms in the water.

15 So, rather than going through an arduous process to
16 try and develop numbers, we decided to stay with the
17 published criteria for the groundwater. Whereas we don't
18 have criteria for soil. So, we have to develop
19 site-specific risk-based numbers for soil.

20 Let me give an overview of what goes into a human
21 health risk assessment. And I know some of you have sat
22 through the process, and are quite familiar with some of
23 the assumptions on what's protected and what's not
24 protected, and others are probably new to the game. And
25 basically it's a scientific study on adverse health effects

1 to people due to a potential exposure to soil.

2 And so, in plain English, what that means is you
3 have people that are coming to the Presidio, using the
4 Presidio. They may have been playing soccer on a ball
5 field that's a site where there's contamination. So we are
6 trying to estimate the potential exposures to those type of
7 people and other users of the Presidio, and the types of
8 procedures we need to calculate cleanup levels.

9 So, what we're going to do is establish a risk
10 level, and we're going to go backwards and calculate how
11 much is allowable in the soil. And then we're going to
12 compare that with examples relative to the Army, where
13 we're following their procedures.

14 So, what goes into human health risk assessment?
15 You start with three major comments. The first is trying
16 to get an understanding of what the future site use is, who
17 is going to be living here. We have people come and work
18 here, and then there's some wide variety of visitors,
19 recreational users of the site.

20 The next thing is for all these different people
21 that use the Presidio, how they may be exposed. Are they
22 getting it all over their hands, and eating it? Or,
23 really, what are the exposure pathways? Then what you also
24 do is you have to figure out what chemicals are there. And
25 what we're going to do is calculate what concentration of

1 these chemicals may be safe or protective out here.

2 So, what we're doing is, I'm going to present the
3 risk-based cleanup level approach. And the first thing we
4 do is identify the potentially exposed populations. Then
5 we look at exposure pathways. Are they eating the soil,
6 getting it on their skin, drinking the water, and so on.

7 We then look into the EPA and DTSC guidance to try
8 to quantify how much exposure, how much dirt are they
9 eating, and how much soil is getting on the skin. Then we
10 will pull numbers from literature for that, and then have
11 to figure out how toxic the chemicals are.

12 We will then use State and EPA guidance to look at
13 the various toxicity. Hopefully, you'll walk away with a
14 understanding of what goes into it. First you identify the
15 target risk level. This is the level that should be
16 protected with the users of the Presidio. Then we
17 calculate preliminary remediation risk-based levels for
18 metals, and compare those levels to background because it's
19 impossible to clean something up beyond background.

20 Some of these metals are more toxic, and I'll spend
21 more time with that and what that means. And then you
22 tabulate the cleanup levels. Because we haven't presented
23 this to the agencies yet, what we've done is included a few
24 representative chemicals to give you a flavor of how they
25 compare to the Army's numbers. I will be handing out more

1 detailed tables.

2 So, who are the potential exposed populations? We
3 have residential users of the Presidio, people that live
4 here, adults and children. So, we'll look at those. We'll
5 look at recreational users, adults and children that enjoy
6 the Presidio. All the commercial federal work at the
7 Presidio, it's the employees of the Presidio Trust, and
8 EKI, employees that are working out of the Presidio office,
9 and all the people that come here every day to go to work.

10
11 And understanding these populations helps identify
12 where these various exposures may occur at the Presidio.
13 And this map was presented in the Alternate Remedial Action
14 Document, and it might actually be easier if I stand up for
15 this one. Basically, I know it's a little bit hard to read
16 because it's so small. It wouldn't reproduce well in black
17 and white.

18 There are different types of hatch marks. We have
19 cross matched criss-crosses, and vertical hatches. What
20 they are is they describe different types of use areas at
21 the Presidio. And mapped on top of that, in color, are the
22 types of cleanup levels that apply in these three areas.
23 Let me walk through these so you can understand what we
24 mean. In the blank, white open space is the primary human
25 use. It is just recreational where people go hiking, and

1 walk their dogs, and play on the ball fields, and enjoy
2 Crissy Field.

3 Then we have this cross hatch mark. And you can
4 see that's in the Main Post over by the part of the cavalry
5 stables, and these are both commercial, federal use, along
6 with the Main Post offices. And then you have that
7 overhang of recreational use as well. So, we pretty
8 much -- there's recreational use over much of the Presidio.

9
10 Then we have these vertical lines, and the housing
11 areas. These are areas that are strictly for residential
12 use, which would be more stringently chewed up than
13 recreational space. Then the last type of hatch we have is
14 this cross hatch, and it's at Letterman Hospital by
15 Landfill E, and up by Fort Scott. If you read the General
16 Management Plan Amendment it talks about institutional use.
17 This is where there could be a conference facility, or some
18 kind of educational center component where people could be
19 there for a matter of weeks, days, months, years.

20 And we've decided to classify that as residential
21 because they are there on a long-term basis. Most of the
22 Presidio is recreational. And then the yellow areas fall
23 under residential standards. And then down in the
24 1750 Lincoln Boulevard area, and by the water treatment
25 plant is only the area in Presidio where we see

1 commercial/industrial in. You don't have recreational use
2 here. This is the only commercial area.

3 And I want to point out at the 1750 Main
4 Installation site, off to the side of the building we're
5 considering that recreational. So at the sites that we
6 know of now today, none of the Main Installation sites
7 really fall into this commercial/industrial category. We
8 want to have cleanup levels if a new site is discovered in
9 the Contingency Plan.

10 So, basically what we're doing now that we have
11 identified the various populations, we're going to look at
12 how these populations may be exposed. And the first thing
13 we have is the chemicals that are in the soil. We're
14 looking at the soil cleanup levels. We have our three
15 populations: residents, recreational users, and
16 commercial/industrial populations. And really they can
17 come into contact with soil by ingesting it.

18 And what ingestion means is you get soil on your
19 hands while you are gardening, and you wipe your hands by
20 your mouth. Also if you are on the ball field and get some
21 soil on your hands. So, you have this accidental or
22 incidental ingestion of soil.

23 Dermal all contact. This is where you got the soil
24 on your hands and it's wet out, or sticks to your arms and
25 legs, and then you have the chemicals that can soak through

1 your skin, essentially from bringing the soil in through
2 your skin. With inhalation what happens is soil can be
3 suspended into airborne materials, and so they end up in
4 the air, and then you end up breathing them in through the
5 inhalation pathway.

6 And when we looked at the conditions you have in
7 the Presidio, where we don't really have volatile
8 chemicals. But generally the chemicals are the
9 non-volatile metals. And so, with these chemicals
10 generally the inhalation is one to two percent of the total
11 exposure. And so that's why we have determined that the
12 inhalation pathway is a minor component.

13 So, now what I'm going to do is I want to give you
14 a flavor of the various exposure assumptions, and emphasize
15 how they differ from standard guidance. These were all
16 pretty much pulled from EPA and DTSC guidance. These are
17 generally a pretty good standard assumption.

18 MR. NELSON: Does anyone have any questions at this
19 point? We're moving we pretty quickly through it.

20 MS. CHEEVER: By the Main Installation, where are
21 you classifying the daycare, under commercial or
22 residential?

23 MS. KING: I have the map in my bag. I'm pretty
24 sure that Baker Center, we had that as residential. I am
25 pretty sure, but I'm not 100 percent.

1 We have a color version of that map if people want
2 to look at it. So basically, as I said these parameters
3 are basically coming from EPA and DTSC. And the first
4 thing we have is averaging time. This is where you look at
5 the length of the exposure. And you really get what's
6 called, "Averaging out the exposure," over a period of
7 time.

8 And for carcinogens you look at a lifetime. And as
9 all of you are probably aware, if you are exposed to
10 carcinogens from the ages of 0 to 20, you may not get
11 cancer until you are 50 years old. Whereas for
12 non-carcinogenic or toxic effects, typically what are
13 called chronic, occur in a five to seven year timeframe.
14 And so, what we do for non-carcinogenics is look at 0 to 6
15 years. They are the most sensitive. If a kid is
16 calculated to have a toxic effect, then if you're safe for
17 a kid you'd be safe for an adult. If you are exposed to
18 non-carcinogens over a 6-year time period for exposure
19 frequency -- you'll notice that the Army didn't calculate a
20 residential number. None of the sites were classified as
21 residential. So, the Trust is looking at residential,
22 where people are on the site, or here 350 days a year,
23 assuming you go on vacation for two weeks.

24 And then we have a recreational scenario, which is
25 assumed that someone uses the Presidio three days a week.

1 They are getting their entire exposure to soil while they
2 are at the Presidio. So, it sort of ignores the fact that
3 you may have a kid that plays in the schoolyard during the
4 day, gets some soil exposure, and comes to the Presidio for
5 his ball game in the afternoon.

6 So, we're trying to protect everyone in looking at
7 this. The Presidio seemed to need a protective approach.
8 Then we have the exposure duration. This is a length of
9 time at the sites, proposed values. And the Army's values
10 were the same. And again, the agencies' protective value
11 for residential and recreational is 350 days a year for 30
12 years.

13 So, then we have the body weight. It is in
14 kilograms. And here are typical body weights, soil
15 ingestion rate, and standard default EPA numbers. And then
16 the last thing on this page is the concentration of soil
17 ingested, that's contaminated. And this is one the factors
18 that the Army used to tweak things. And the idea was that
19 they used to factor half the time. So someone comes to the
20 Presidio half the time to come in contact with the
21 contaminated soil.

22 And so, what we felt, we looked this over, and we
23 felt this overlooked the person who comes to the Presidio
24 three days a week, and goes to the ball field on Landfill E
25 every day. And so, the idea of cutting this exposure in

1 half didn't seem protective enough to residents that are
2 literally next to sites that are their backyards. We
3 wanted to make sure we didn't overlook people who may go to
4 the same place, and it may happen to coincide with one of
5 the sites.

6 So, now we're going to move on to next set.

7 MR. BLOOM: Body weight assumptions based on
8 kilograms looking at what?

9 MS. KING: 70 kilograms, 150, 160 pounds.

10 MR. BLOOM: There's been some concerns expressed
11 that that doesn't effectively measure the average body
12 weight for women and for Asians. And so, there's a
13 question about whether or not that's actually an
14 appropriate body weight for the risk assessment. And it
15 might be better if we looked at a range. So, I just want
16 to give you that input because that has been raised at most
17 of the health risk assessment discussions that I've
18 participated in.

19 So, I'd like to put that back out to you to see if
20 we can come up with more of a refinement of that. People
21 were larger body weights and the impact on their body and
22 the impact on people with lesser body weights. So, I think
23 we need to be concerned about that.

24 MS. KING: That's something we can talk about.

25 Moving on with the next parameters. Here is a little more

1 of a change from what the Army used. These are various
2 exposures through the skin. And the first one is skin
3 surface area. There is new guidance that came out both in
4 '97 and '98, after the Army did its risk calculations. And
5 that could explain some of the minor differences in this
6 change of guidance.

7 Next is skin surface layers. And this is how much
8 skin can get dirt stuck to it. And what the Army assumed
9 was that people were wearing long pants and long-sleeved
10 shirts when they were at the Presidio, so their exposed
11 skin was minimal. And we didn't feel that that reflected
12 recreational users. As we all know people around the
13 Presidio wear shorts and stuff, and I think the Army said
14 it was too cold and foggy here, is what I recall them
15 saying.

16 But we felt we should have something that's more
17 representative, to represent what adults wear here, shorts
18 and short-sleeved shirts. And so their legs, arms, hands,
19 and heads are being exposed, and could be covered if they
20 are playing soccer and getting quite dirty. Then for the
21 kids we have a similar scale where they wear shorts,
22 short-sleeved shirts, and they are also barefoot. Because
23 I know a lot of kids would rather be barefoot than wear
24 shoes. So, we thought that was a pretty reasonable
25 assumption.

1 And then with your skin adherence factor, how much
2 dirt sticks to your skin, new guidance out differs from the
3 Army. We have a lower number, and there really was a new
4 set of studies that came out in the '96 to '97 timeframe
5 that looked at this factor. And it was kind of a bizarre
6 study to read because they had these various populations
7 and Tai-Chi people, and rugby players, and construction
8 workers, and all different types of populations, and how
9 much soil stuck to their skin.

10 The last one is chemical specific type of
11 parameter, and how much of the chemical, how much of it
12 soaks in, and gets into your bloodstream. These parameters
13 are chemical specific, and what we used were the latest
14 guidelines published by the State and by the DTSC. And so,
15 our numbers do vary slightly from the Army. Some of our
16 numbers are more protective, and some are a little bit less
17 consistent than standard practice in the State.

18 Thank you for bearing with us on that table. I know it
19 was painful.

20 MS. SHLEZ: I'll send out the tables with the one
21 column that's been chopped off in the presentation, so you
22 have the numbers that we've proposing.

23 MS. KING: So, now we know who's exposed, and how
24 much. Now, we have to look at the chemicals, and how toxic
25 they are. There are values in EPA or State guidance. And

1 there's numbers that represent toxicity of carcinogens, and
2 numbers for non-carcinogens. And with carcinogens we look
3 at a slope factor. This tells you how carcinogenic
4 something is. What we did is we got our numbers from the
5 DTSC.

6 That was our first choice, if more recent numbers
7 were available. So, the higher the slope factor, the more
8 carcinogenic something is. So, by way of example, if you
9 have something like arsenic, which is very carcinogenic,
10 then it has a higher slope than TCE. So, if you were to
11 calculate a cleanup level based on arsenic and TCE, you
12 would end up with a lower number for arsenic, which would
13 be more protective, but it would be a lower number because
14 it's more carcinogenic.

15 For non-carcinogenic reference doses this is a
16 little flipped over relationship. The reference dose is
17 how much of this chemical causes an adverse impact. And
18 when we talk about an adverse impact for non-carcinogens,
19 we are not talking about liver damage, kidney damage. We
20 are not looking at cancer. We are looking at
21 non-carcinogenic effects. So, it's neurological effects,
22 weight loss, skin rashes, and things like that.

23 And so, with the reference dose for
24 non-carcinogenic effects, the smaller the value, the more
25 toxic it is. The way the regulatory agencies defined these

1 numbers is, for cancer if they have a known human
2 population that's been exposed to arsenic because they are
3 in some degree exposed, there is an epidemiological study
4 to help develop this number.

5 But more common is they don't have numbers based on
6 humans. They look at animal studies, rats and mice, and
7 things like that. And then they extrapolate that up to
8 what it might mean for a human. There are a lot of
9 uncertain factors in this process. When you are looking at
10 this whole risk assessment process some of the greatest
11 safety factors and uncertainty really comes from the
12 development of these toxicity parameters.

13 What this means then is we have to talk about
14 what's going to be a protective level. So, what is our
15 target risk levels and for carcinogens when we talk about
16 risk? It's the probability that someone will get cancer
17 over their lifetime due to an exposure to soil at the
18 Presidio.

19 And so, it's not the probability that Julie is
20 going to get cancer because -- I'm making this up -- but
21 you have a family history of cancer. It's really that
22 added risk due to exposure of chemicals at the Presidio.

23 And so, what we're looking at is one in a million.
24 And the EPA has established a range of acceptable risk in
25 their Superfund program. Acceptable is one in a million to

1 one in ten thousand. And from the Trust perspective, one
2 in ten thousand people live here. And so, what the Trust
3 is doing is looking at the conservative, or more protective
4 potential risk of one in a million. This goes back to the
5 relationship I was talking about before, that this target
6 risk is equal to the dose. How much you're getting exposed
7 times the slope factor. The higher slope factor means a
8 higher risk.

9 For non-carcinogens the target is a little bit
10 different. It has a hazard index. Non-carcinogen
11 probability is not like a problem with a range of
12 acceptable risk. Basically, with non-carcinogens it's a
13 threshold effect. If you exceed this number, one, the
14 equation says you're going to have a toxic effect. If
15 you're less than 1, it is not better than .55. It doesn't
16 matter. If it's greater than 1, you've got a problem.

17 Now, you can see with the equation again. So, it
18 means a smaller reference dose means a higher hazard. A
19 smaller dose is more toxic. So, the dose that we're
20 talking about is really a function of the chemical
21 concentration. And so, what we're trying to do with these
22 cleanup levels is calculate this concentration in soil.

23 MR. KERN: On the hazard index, and you had
24 something above 1 -- like if you had something above 1 like
25 10, or a number came out like 100, or 1,000, does that make

1 any difference when you start getting much bigger numbers?

2 MS. KING: Typically you don't look at that. If
3 you're above 1 you have a problem. If you are below 1 you
4 don't have a problem. And what people will do, when you
5 are looking at the site, and you have five chemicals out
6 there, if you exceeded one, the next level that someone can
7 do is we have these five chemicals.

8 You look at what organisms they are impacting.
9 Does it affect your liver? Does one affect your skin? And
10 so, you can actually go and separate it out. It is very
11 rare that anyone does that in risk assessment. We want to
12 be more conservative, but that is a way to do it. So, I
13 think generally you take above 1 as being a problem.

14 MR. BLOOM: We should say that while the Superfund
15 does allow for risk range from 1 in 10,000 to 1 in a
16 million, it explicitly states a preference for the higher
17 more protective 1 in a million. The 1 in 10,000 requires
18 an explanation of diversion from that 1 in a million
19 standard when lesser standards are imposed on a cleanup.

20 MS. KING: What's become pretty common practice in
21 the State is that pretty much for residential sites, people
22 want to look at the 1 in a million numbers to be protective
23 of people living there. You don't want to go above that.
24 When you are looking at commercial/industrial you can look
25 at the 1 in 10,000 risk range.

1 MR. BLOOM: Generally speaking, at this point there
2 is still a lot of controversy going on about that.

3 MS. KING: Yes, but it's used a lot though.

4 MS. CHEEVER: Can I ask you a question about the
5 reference dose? Is that the lowest level at which there's
6 a measurable health effect, or ill health effect?

7 MS. KING: It's hard to necessarily call it that.
8 I know from the eco stuff is the lowest.

9 MS. CHEEVER: Is it the level at which it hurts you
10 then?

11 MS. KING: In a sense it is. And what they've done
12 is they go back to the various literature studies, look at
13 the rat studies, and so they'll look at lowest effects, and
14 look at no effects. And then these are like the agency
15 toxicologists, and then they come up with recommended value
16 safety factors on, and literally extrapolating from a rat
17 to a human. And they will look at the factors on top of
18 that, what the dose concentration is at which you could
19 have a toxic effect.

20 MS. CHEEVER: One other question. It sounds like
21 maybe a given chemical could hurt a human being in several
22 different ways, and different doses would do different
23 things. So, how do you figure that out?

24 MS. KING: Good question. What happens is that
25 different chemicals will have different effects on

1 different organs. And so, the other ones are secondary
2 effects. Any other questions? So, now when you calculate
3 these soil cleanup levels you have a big complicated
4 equation that will give you a flavor of how these
5 assumptions get brought into the equation.

6 You saw in the prior page, for carcinogens risk
7 equals dose times slope factor. Now, solving for
8 concentration equals the target divided by the slope
9 factor, times all the various exposure modes determines
10 ingestion, and determines for adults underneath it. The
11 sampling equation for the child is there as well. And
12 these are all the assumptions on how much soil a kid eats,
13 and things like that.

14 And then, if you go on to the non-carcinogenic
15 equation, this is similar where we are calculating. Now
16 you can see in the exposure to a child, if you recall for
17 non-carcinogens, if you're only looking at what is toxic to
18 a child, then you're protecting everyone in evaluating the
19 child's exposure. And again, you can see all the different
20 contents of what goes into a dermal exposure.

21 So, now that we have these various PRG based on
22 cancer effects, and non-cancer effects. And you may ask,
23 is a given chemical both? And the answer is yes. There
24 are certainly chemicals, arsenic is one I think, that's my
25 chemical of tonight, where they have both non-cancer and

1 cancer effects.

2 So, when we calculate this PRG, we compare and use
3 the concentration that's lower the one that is more
4 protective of human health. And for non-metals we
5 established this lower number as the cleanup level. We're
6 going to look at what's in the background as well. And the
7 reason why we're going to look at background is certain
8 chemicals, like arsenic, that are found naturally in the
9 environment around the Presidio, are around 5 million grams
10 per kilogram in soil. But you can't calculate a risk-based
11 cleanup level less than what's in the background.

12 So, there's no way you could actually clean it up.
13 Wait a second. You don't want to say, "Am I safe to being
14 exposed?" We want to make sure that none of us have been
15 sick from being exposed to background chemicals. And part
16 of that is metals are found when they are in soil, in a
17 crystalline form. They are not very bio-available. So, if
18 you swallow natural dirt, generally that stuff doesn't
19 dissolve into your stomach, and it isn't absorbed into your
20 stomach.

21 So, if we make this adjustment to say that if the
22 background concentration exceeds the calculated PRG, then
23 the soil cleanup level will be established as the
24 background is consistent with what the Army did. On the
25 other hand, we can then use the risk-based level as the

1 cleanup level.

2 So, my last slide is basically where we have shown
3 some examples compared to the Army's numbers, where we see
4 a range like, for arsenic we have 47.3 to 51. Basically,
5 this range corresponds with the arsenic found at the
6 Presidio. For other things like lead, and these other
7 chemicals, you can see that generally most of the numbers
8 are lower than that proposed by the Army.

9 So, they are more protective. And you also may
10 notice some chemicals the Army didn't calculate numbers
11 for. And I have no idea why they didn't, but they weren't
12 included in their tables. There is DDT, where the Trust
13 recreational number is a little bit higher than the Army's.

14 The reason why is if we go back and look at one of
15 the parameters, which is the dermal absorption parameter,
16 the number in the DTSC literature that we were using, is a
17 lower number, which means that we have a higher cleanup
18 level to with it. It is just a chemical specific number.
19 So, that was it.

20 MR. WALLENBERG: I had a question. Are you
21 considering in your model, children having airborne lead
22 and installation as a pathway?

23 MS. KING: Yes. Lead is calculated a different way
24 than what I just walked through, but I wanted to spare all
25 of you the pain and suffering. But when you look at lead,

1 you're concerned about the total exposure of lead in the
2 blood. And you add up all the background exposure. You
3 look at lead in food, lead in water, lead in air, and lead
4 in soil. And so, then you say how much from all those
5 various intakes, how much ends up in your blood. And
6 there's a safe 10 micrograms per deciliter of blood. And
7 so, we calculated this looking at all these background
8 exposures.

9 MR. BLOOM: Looks like in your lead, you're using
10 the current guidelines under the U.S. EPA guidelines as
11 opposed to California State concerning residential.

12 MS. KING: We're using the California, I mean the
13 EPA number. And part of the rationale for doing that was,
14 I know in our experience that the DTSC is moving away --
15 we've worked on several sites picking up on 400, and part
16 of it is that there's some literature around that shows the
17 lead in our food is quite a bit lower in the DTSC model.

18 So, although it's not been widely applied and the
19 DTSC hasn't updated it, the model accounts for lead in our
20 food. Then you actually end up close to the State model.
21 It's pretty close to 400, but we're not adjusting this
22 number for our recreational at this point. We're looking
23 at the EPA numbers for recreational numbers, and we
24 calculated the recreational number.

25 MR. KERN: There's a special kind of a child that

1 sits out in their backyard and eats dirt. And I was
2 wondering if the ingestion response for the child includes
3 that in any way?

4 MS. KING: Well, the ingestion level is 200
5 milligrams a day, and the ingestion numbers are intended to
6 be a reasonable maximum exposure. For that type of
7 parameter, it is not likely that they are looking at
8 something that would be quite -- say the higher end of the
9 scale is not necessarily a child who will go out, and who
10 likes to eat dirt more than your typical kid. The 200
11 accounts for your typical toddler that's sticking
12 everything in their mouth, where the other is beyond the
13 toddler by eating lots of dirt.

14 MS. CHEEVER: I know you explained it. What does
15 the range mean? Is it 42 to 5,500?

16 MS. KING: That was Ina's question yesterday.
17 Basically, the range is where the background level is
18 actually higher than the risk-based level that we call
19 lead, or nickel. And the 5,500 is nickel and serpentine.
20 And so, if we look at the beach dune, the sand, the nickel
21 is probably around 42, but when you go to serpentine, that
22 has naturally elevated levels of chromium and nickel in it.
23 That's where the 5,500 is. Serpentine is about 5,500,
24 whereas if you're at a beach dune site you're looking at
25 42.

1 MR. KERN: Do you happen to know what a number
2 would be for a pica child? If 200 is a regular kid, what
3 level is it for a kid who is munching away?

4 MS. KING: I can't remember off the top of my head.
5 It might be double, and I've never seen the risk assessment
6 on a pica child.

7 MR. KERN: It was something that got expressed a
8 number of times over the years here.

9 MS. KING: I will check if you want.

10 MS. SHLEZ: We'll check on that and get back to
11 you.

12 MR. WALLENBERG: Were you going to talk about the
13 hexivalent chromium here tonight?

14 MR. NELSON: No. We don't have a specific agenda
15 item for this meeting, but we will discuss it in an
16 upcoming meeting.

17 MR. KERN: We expect to get a full list in the
18 final document, and we will see in advance all the cleanup
19 levels?

20 MR. NELSON: I think the idea is when these numbers
21 are approved, we can release them and get feedback before
22 the document comes out. That is sort of the strategy with
23 a lot of these things is to get initial feedback to avoid
24 comments on the final document.

25 MR. KERN: Any other questions on this part of the

1 program?

2 MS. CHEEVER: I want to say thank you. This was
3 really interesting. We saw a lot of these concepts in the
4 previous round of the Feasibility Study, but it's very
5 helpful to have it explained. So, thank you very much.

6 MS. KING: Thank you.

7 MR. KERN: Thanks, Michelle.

8 MS. KING: And I have this figure here if you want
9 to look at the various cleanup levels, and use levels.
10 It's one of the figures from the Alternate Remedial
11 Document.

12 MR. NELSON: Thanks, Michelle.

13 MR. KERN: Proceeding along then. Any new business
14 from anyone this evening? Any action items? I guess that
15 there's one, finding out the soil intake of a pica child.
16 That is a high priority issue there. I guess to review
17 some of the meetings coming up that Chris already
18 mentioned. May 15th is the hexivalent chromium meeting.
19 He asked that some of us who are going to that look at the
20 field sampling plans that are in. So, we'll be doing that
21 shortly.

22 I think it would be useful for members to have a
23 brief discussion with Ina about some upcoming meetings,
24 both committee meetings and future RAB meetings. And in
25 the next few meetings we can project when we may begin to

1 discuss remedial alternatives for sites. So, it would be
2 useful for the group, either in committee or email, to
3 discuss would be a good way to do that.

4 Ina has mailed some good recommendations about
5 possibly using RAB meetings in working group sessions.
6 There's a variety of options open to us, and Ina is also
7 available if you want to meet with her during the day, or
8 at some time that we can arrange to sort of figure out
9 those upcoming meetings. So, I think we can probably
10 arrange that via some email discussion.

11 Okay. Any other agenda items? I think, Chris, you
12 mentioned at the next committee meeting we would possibly
13 be reviewing seep data?

14 MS. SHLEZ: George Ford will be there to discuss
15 that.

16 MR. NELSON: I also failed to mention we will talk
17 about this at the next meeting. Due to the weather
18 changing, if you recall from the last meeting, one of the
19 proposed sampling locations was the seep at the Baker Beach
20 area, Distributed Area 3. And last Monday myself, and
21 Brian, and another person from the Park Service, and an EKI
22 representative went out and collected a sample at the seep.
23 It is really an underground seep at this point. And the
24 results came in today. I really had no time to look at
25 them in preparing for this meeting, so we will have that as

1 a discussion point at the next meeting.

2 MR. KERN: So, you had to dig down, I guess, to get
3 at that?

4 MR. NELSON: Yes. It was seeping at about a foot
5 and a half --

6 MR. ULLENSVANG: No. More than 3 or 4 feet really.

7 MR. NELSON: I didn't have my head in the hole.

8 MR. KERN: Thank you. We'll look forward to
9 hearing about that and poison oak contamination in the
10 sampling.

11 MS. KING: Naturally occurring.

12 MR. KERN: Naturally occurring poison oak. Okay.
13 Yes. Upcoming agenda item for the next committee meeting,
14 and Ina has also mentioned she's put out an email with
15 respect to some the public announcements, and she reports
16 to me that we haven't gotten any feedback. So, perhaps at
17 our next committee meeting we could return some of that
18 material as well.

19 MS. MONAGHAN: As far as membership goes?

20 MR. KERN: Yes, membership stuff. Anything else
21 that people can think of at this point? I think it's going
22 to be really important to look down the road, and try to
23 make the most of every opportunity we can to discuss issues
24 in advance of the actual document coming out, and still
25 being respectful of the Trust's timetable. They want to

1 get this thing out, and so we are going to be coming in the
2 summer months.

3 Traditionally, July and August are periods where
4 people are away. So, we need to take that into account,
5 and try to get as much discussion as we can while people
6 are around. So, we'll be trying to factor that in.
7 Anything else?

8 MR. BLOOM: I have some quick announcements. As
9 people know, ARC Ecology sued the Navy a week and a half
10 ago for failure to clean up Hunter's Point. There has been
11 some activities I want to let people know about. On
12 Thursday at noon, there's going to be a banner raising at
13 Hunter's Point, the front gate of the shipyard, calling for
14 a cleanup demonstration.

15 On Saturday at noon, in front of the Bay View Opera
16 House there will be a demonstration for cleanup of the
17 shipyard, followed on the 25th by a larger demonstration in
18 front of the Federal Building at noon again, for cleanup of
19 the shipyard.

20 So, this is helping another community in
21 San Francisco get their site attended to as well, as this
22 site being attended to. So, we should show some solidarity
23 with our other RAB members, and other people dealing with
24 cleanup.

25 The other point that I want to raise is that the

1 Air Force over at McClellan appears to be shutting down
2 that RAB because it has been raising some issues for the
3 Air Force that they are uncomfortable about. I am sure
4 litigation will follow fairly shortly if they go through
5 with this decision to shut down that RAB. This is the
6 second RAB shut down in the last year and a half. And with
7 the Defense Department also shutting down the National
8 Defense Environmental Response Task Force, the RAB caucus
9 is now considering litigation across the board on the issue
10 of RAB closures.

11 I was asked if there was a model they could look at
12 on how to improve the RAB, and I actually mentioned this
13 installation as being one the mediums. So let's help
14 improve the RAB up at McClellan Air Force Base. We will be
15 coming back and asking RAB members to get together with
16 other RAB members to oppose the closure of the RAB in
17 violation of the guidance of the Defense Department adopted
18 for RAB management.

19 So, those are my announcements. I'll keep people
20 up to date as the litigation rolls out.

21 MR. KERN: Thank you, Saul. Any other
22 announcements?

23 MS. SHLEZ: I just want to remind everyone of next
24 month's venue. Next month we're going to be back at the
25 Golden Gate Club. So, hopefully no one will get lost.

1 MR. KERN: Okay. Without any further ado, and
2 without any objections the meeting is adjourned. Thank you
3 for coming tonight.

4 (Meeting adjourned 8:16 p.m.)

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APPEARANCES

RAB MEMBERS

Saul Bloom

Edward Callanan, Jr.

Julie Cheever

Henry Chui, DTSC

Julian Hultgren

Kathryn Hyde

Doug Kern

Bruce Mckleroy

Jan Monaghan

Sharron Reackhof, Presidio Trust

Ellie Roman

Brian Ullensvang, NPS

Joanne Chow Winship

Mark Young

---oOo---

OTHERS IN ATTENDANCE

Non-RAB Members

Jim Breitlow, Harding Lawson Association

Jennifer Coats, Presidio Trust

Michelle King, EKI

Chris Nelson, Presidio Trust

Ina Shlez, Presidio Trust

Ellis Wallenberg, Treadwell & Rollo, Inc.

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1 RESTORATION ADVISEMENT BOARD MEETING

2 TUESDAY, JUNE 13, 2000

3 7:15 P.M.

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9 THE PRESIDIO RESTORATION ADVISORY BOARD

10 GOLDEN GATE CLUB MEETING

11 135 FISHER LOOP

12 SAN FRANCISCO, CA

13
14 ORIGINAL

15
16
17 REPORTED BY:

18 JENNIFER M. RODRIGUES, CSR, RPR

19 CLARK REPORTING

20 CERTIFIED SHORTHAND REPORTERS

21 2161 SHATTUCK AVENUE

22 SUITE NO. 201

23 BERKELEY, CALIFORNIA 94704

24 (510) 486-0700

25

A P P E A R A N C E S

RAB Meeting Members:

SAM BERMAN

EDWARD CALLANAN, JR.

JULIA CHEEVER

HENRY CHUI, DTSC

LINDA DORN, RWQCB

MATTHEW FOTTLER

JULIAN HULTGREN

KATHRYN HYDE

DOUG KERN

ANDREW LOLLI

SCOTT MILLER

JAN MONAGHAN

PETER O'HARA

JAMES PONTON, RWQCB

SHARRON REACKHOF, PRESIDIO TRUST CO-CHAIR

PATRICIA RYAN, DTSC

BRIAN ULLENSVANG, NPS

TRACY WRIGHT

MARK YOUNGKIN, COMMUNITY CO-CHAIR

INA SHLEZ, RELATIONS SPECIALIST

1 MR. KERN: Good evening, everyone.
2 I would like to welcome everyone here tonight
3 particularly trusts; the National Park Service;
4 their consultants; our regulator; the community,
5 including the California E.P.A.; and the D.T.S.C.;
6 Regional Air Quality Control Board; and in spirit
7 our regular leaders from the U.S. E.P.A., who have
8 joined us in the past and who are with us here in
9 spirit.

10 I'd also like to welcome our
11 community members who were here tonight and
12 particularly those of you in the public who are
13 here based on advertisement for new community
14 members for the Restoration Advisement Board.
15 Thank you for coming out tonight. I will like to
16 take the opportunity then to expand my usual
17 welcoming remarks for your benefit.

18 Those of you who are here with an
19 interest to become a member of this board, give
20 you a little bit of background right now about
21 what it is; what kind of world that this group --
22 roles that group takes on; what we actually do;
23 and what's expected of ground members, should you
24 be selected, and also give you a little bit about
25 what the selection process is.

1 And we'll end that whole process
2 with an introduction of the RAB members at the
3 table here so you could get a feel for who is
4 currently on the board and what their expertise
5 is.

6 So I'll go through just a very brief
7 history of what the Restoration Advisory Board is
8 about, who are the RAB members that sit up here,
9 what's our role, and the process of selection.

10 The RAB was formed in April of 1994.
11 And prior to that time, there were community
12 members, activists, environmental groups working
13 with the Army in what was called at that time the
14 Technical Review Committee, which was the
15 precursor to this RAB.

16 There were documents and preliminary
17 assessments being conducted on Presidio
18 contamination as early as 1989. In fact, there
19 were community activists working on contamination
20 issues here in the Presidio as early as 1986. And
21 we have members of our board that were working on
22 Presidio at that time.

23 So we have a long continuity with
24 the work here at the Presidio on the cleanup and a
25 lot of experience on the board. The RAB members

1 are composed of community people. They're members
2 of specific organizations, neighborhood
3 organizations, environmental groups; they're
4 members of the media; they're architects; they're
5 attorneys, scientists.

6 There are a number of Presidio
7 tenants, educators, federal agencies. This is a
8 very broad and diverse group. We're also
9 represented on this board by the National Park
10 Service and the Presidio Trust both as having
11 jurisdiction of various parts of the park and
12 working together on the cleanup of the park.

13 And perhaps they can mention, during
14 their introductions, a little bit more about their
15 role if they would like to. First the role of
16 what this group really does and what we're
17 actively -- what we've actively been pursuing
18 since 1994, the group, the primary responsibility,
19 is to review cleanup plans and documents of the
20 contamination that resulted from the former --
21 former Army occupation and activities here at the
22 Presidio.

23 There were a number of sites ranging
24 from petroleum contamination, landfills, solvents,
25 heavy metals -- just a variety of things that,

1 should you choose to get on the board and it
2 should be selected, you'll have the pleasure of
3 learning and getting into great detail about.
4 Then the primary criteria for really excellent
5 participation on the board would be your desire to
6 participate, the ability to come to RAB meetings,
7 and the committee meetings which meet outside this
8 meeting.

9 So there's a monthly RAB meeting
10 which meets here the first Tuesday -- the second
11 Tuesday of every month. And then we have a
12 committee meeting generally on the fourth Tuesday
13 of every month.

14 The RAB members review these cleanup
15 plans. Sometimes they're quite technical in
16 nature. But do you really need to have a
17 technical background as one of the primary things
18 that often comes up? As I've mentioned before, we
19 have really a broad diverse group. It's not
20 always necessary to have a technical background.

21 It can be helpful to understand a
22 little bit about what's going on in terms of the
23 science. But really the group needs to comment
24 from a citizen perspective. And that's what we
25 really value the most from our community members.

1 What's the common sense thing that we need to do
2 in a particular situation? And we provide that
3 feedback to Park Service and the Trust.

4 Okay. A little bit about the
5 process of selection. The RAB has -- RAB -- we
6 use that term pretty freely: Restoration Advisory
7 Board. In fact, this is very really acronymland.
8 We just have an acronym for everything.

9 And if we start using acronyms, it's
10 like second nature to us -- just feel free to hit
11 somebody close to you. What does that mean? And
12 we'll try to be expressing what those acronyms
13 mean -- the RAB.

14 Process of selection: We have a
15 number of committees. And we have a selection
16 committee where the committee will -- they have
17 developed over the years a set of criteria.

18 They range from, you know, what
19 neighborhoods are represented; what types of
20 background people have; whether you're a scientist
21 or attorney, architect, real estate. We're not
22 looking for particular kinds of background but
23 just a broad diverse background. So that group
24 will also see who continues to come to the
25 meetings, who fills out an application.

1 And we'll -- there's a -- there's
2 quite a process that people go through to get on
3 the board. Eventually we will make a
4 recommendation that I -- that the selection
5 committee will recommend to the full board -- a
6 slate of new candidates. And the board will vote
7 those candidates on to the board.

Attendance requirements: We have a rule that RAB members not miss more than three meetings in a year. And so that's a third and a quarter of the meetings you have the opportunity to not show up, but we really value close and regular participation.

That's particularly important during this period right now, which is something we'll get into in a little bit about where we are in this whole cleanup process and why this is a particularly important and really historic time for the Presidio and for the cleanup of the Presidio. So right now I'd like to take a moment to introduce the members of the board.

I'd like everybody just to give 30 seconds, a minute, about yourself if you'd like; what your background is perhaps of an organization you represent. And we also have some new members

1 of the board. So those of you who are new
2 tonight, perhaps you will also have the
3 opportunity to introduce yourselves to the rest of
4 the board.

5 So I'll start with myself. My name
6 is Doug Kern. I'm a community member, have been
7 since the start of the RAB. And early on in the
8 process, I was selected by the board to facilitate
9 these meetings and have done so for many years.

10 I'm a professional mediator and a
11 facilitator and also run an environmental
12 organization that's performing work on the
13 Presidio in terms of restoring open space. So
14 there's some connection there. I have a
15 background in geophysics and business. And that's
16 probably enough said about me at the moment.

17 How about if we go this way to my
18 left?

19 MS. REACKHOF: Hi. I'm Sharron
20 Reackhof. I'm the environmental mediation manager
21 for the Presidio Trust.

22 I have been with the Presidio Trust
23 since pretty much since its inception two years
24 ago and have been actively involved with this
25 Restoration Advisory Board and have been working

1 your faces. And let us show our faces to you.

2 I am not an official RAB member, but
3 what I do for the Presidio Trust is I support the
4 RAB in its various investigations. I produced our
5 newsletter; I work with individual RAB members on
6 individual issues that arise; and I work with the
7 environmental mediation department on just about
8 any facet that needs to be worked on.

9 So if any of you ever have any
10 follow-up questions after you leave here tonight,
11 please feel free to contact me. And I'll be able
12 to hopefully answer your questions or be able to
13 point you in the right direction.

14 MR. O'HARA: I'm Peter O'Hara. I
15 have been with the Restoration Advisory Board
16 since its inception in 1994. I'm one of the board
17 of the directors of the Cow Hollow Association,
18 which is a neighborhood that abuts the east wall
19 of the Presidio. And that's why I'm a member of
20 the board.

21 MR. HULTGREN: I'm Julian Hultgren.
22 I'm a community member of the RAB. I'm retired.

23 And before my retirement, I was the
24 attorney with the San Francisco City Attorney's
25 office. I happen to be fortunate enough to live

1 about half -- on 21st Avenue, about a half a block
2 from the Presidio.

3 And I have lived there for a good
4 number of years. My family has consistently used
5 the Presidio for bicycling, for hiking, just
6 general enjoyment. And that is the basic reason
7 that I wanted to be a participant in what's
8 happening out here. And that's why I volunteered
9 to be a community member of the RAB.

10 MR. YOUNGKIN: Mark Youngkin. I'm a
11 community member and elected community co-chair of
12 the Restoration Advisory Board. I'm a neighbor of
13 the Presidio. I live in Laurel Heights, just to
14 the south of the Presidio. And my background is
15 in earth science, and I've been a member since
16 1997.

17 MS. HYDE: Hi. My name is Kathryn
18 Hyde. I'm one of the newer members. I've been
19 on the committee a few months. I've lived in the
20 Inter-Richmond for 20 years. And the Presidio has
21 been my backyard for all that time. And my
22 background is in solid waste management and
23 recycling.

24 MR. BERMAN: I'm Sam Berman. I'm a
25 community member and a neighbor of the Presidio,

1 living on the border of the Presidio.

2 I've been a community member for
3 about two-and-a-half years. And I'm a physicist.
4 And I'm serving on the board because Doug felt
5 that some physicists should be part of the RAB.

6 MR. LOLLI: My name is Andrew Lolli.
7 I'm a retired toiler for Lawson. And Presidio
8 means an awful lot to me over the years.

9 Since I served on this board a
10 number of years, I had the pleasure of working
11 with some of the people that are here. And they
12 are -- they were outstanding. They did a nice
13 job, and I'm proud to be a part of them.

14 A new point came up the other day --
15 the veterans know that the graveyard is full. So
16 they came to me and said since that land belonged
17 to the Army, why can't we get a few acres of land
18 adjacent to the Army for the burial of the
19 officers that are living?

20 And I'm going to take that point up
21 to the -- although it may not come to this
22 department but the member of this board. I'm
23 proud to be a part of them.

24 MS. MONAGHAN: My name is Jan
25 Monaghan, and I've been on the Restoration

1 Advisory Board since the beginning as well. My
2 background is facilities management. I've been in
3 facility management for the Federal Reserve Bank
4 for 23 years.

5 And I got involved with the
6 Restoration Advisory Board through the
7 international facilities management association.
8 I'm also a member of the Presidio.

9 MR. FOTTLER: My name is Matt
10 Fottler. And I've been a community member for
11 four years now.

12 And I've been interested in the
13 Presidio, working with environmental groups such
14 as the defense fund and San Francisco Gatekeeper
15 to cases to successfully close the military bases
16 in the Bay Area. So it's only natural that I
17 found my way here and continue to work on such
18 projects.

19 MS. WRIGHT: Hi. Excuse me. My
20 name is Tracy Wright.

21 I'm also a community member, been on
22 the board for about two years. I would have been
23 on the Presidio for about almost years now,
24 volunteer for several years. I have had a strong
25 interest in environmental issues and worked with

1 several nonprofits as well as the Presidio
2 alliances that's involved in the area obviously.

3 I'm now working at Business for
4 Social Responsibility. Pass the over to Julie.

5 MS. CHEEVER: Hi. I'm Julie
6 Cheever. I've been a member of the RAB since late
7 1995. I am a news reporter who covers legal
8 matters, which has the advantage of helping me not
9 be afraid of acronyms and terminology. And I live
10 in the Richmond District near the Presidio. And
11 on the RAB, I represent the planning association
12 for Richmond.

13 MS. RYAN: Hello. My name is
14 Patricia Ryan. I'm one of the regulators. I'm
15 afraid I work for the Department of Toxic
16 Substances Control. I am proud to say I'm a
17 generation San Franciscan, but this is my first
18 RAB meeting. I've been driving through the
19 Presidio for more years than I care to admit.

20 I work -- I split my time between
21 Berkeley and Sacramento headquarters. I work in
22 the Office of External Affairs and Public
23 Participation in the office of the military
24 facilities. And I'm working in partnership with
25 Henry from the RAB. And I am really pleased to be

1 here.

2 MR. CHUI: Hi. Henry Chui also for
3 the D.T.S.C. I'm the project manager at D.T.S.C.,
4 which also -- and I oversee the cleanup at
5 Presidio. I have been on this project for about
6 maybe eight, nine months now in the -- been with
7 D.T.S.C. for about ten years.

8 MS. DORN: Hi. My name is Linda
9 Dorn. I'm with the Regional Water Quality Control
10 Board.

11 I've been working here at the
12 Presidio for about a year. And the primary
13 responsibility that the regional board has with
14 the Presidio is dealing with petroleum moories
15 when that is above storage tanks, pipelines. We
16 also are involved with the effects of the water
17 quality with anything that involved affects of
18 water quality.

19 Before coming to the regional board
20 a year ago, I worked for Santa Clara Valley Water
21 District in the underground storage program for
22 five years. And you won't generally see me at the
23 RAB meetings. I have courses that I take and
24 intend to conflict with this time.

25 So I've been splitting my time with

1 somebody else in the regional board, and it's a
2 new person tonight. I will introduce --

3 MR. PONTON: Hi. My name is Jim
4 Ponton. And I'm a geologist with Regional Water
5 Quality Control Board. It's my first time at this
6 RAB. I started working for the board in December
7 of '99. Prior to that I worked in petroleum
8 exploration and consulting, permanent consulting,
9 in the Bay Area. I'm happy to be here. Thank
10 you.

11 MR. FORD: My name is George Ford,
12 and it looks like we're sitting at geology corner
13 here. I work as a project manager for the
14 Presidio Trust, doing environmental cleanups,
15 focusing mostly on petroleum. And my academic
16 training is in geology although right now what I
17 do at the Presidio is more in the realm of
18 earthmoving and ground water treatment rather than
19 geology.

20 MR. ULLENSVANG: My name is Brian
21 Ullensvang. I work for the National Park Service.
22 I've been with the Park Service for approximately
23 five years, representing them here on the
24 Restoration Advisory Board.

25 Prior to coming to Park Service, I

1 was with the Environmental Protection Agency as a
2 working manager throughout California on cleanups.
3 And currently the role in the National Park
4 Service goes back to the cleanup and the
5 remediation that Presidio is working with the
6 Presidio Trust and incorporating the cleanup.

7 MR. KERN: Thank you very much. And
8 I think we have -- we had one additional RAB
9 member come in.

10 Edward, if you might introduce
11 yourself to the --

12 MR. CALLANAN: It's a good way to
13 start. My name is Ed Callanan. I've been on the
14 RAB going on three years now. And my interest is
15 in the interest of the park and of the Presidio
16 that I think all native San Franciscans love and
17 have taken for granted over the years.

18 And when we sit on this board and
19 realize the dangers that are underground and even
20 some that percolate to the ground, that there's
21 quite a job ahead. And some to two items that we
22 have to study and to try to make sensible
23 resolutions for very complex problems, I think.

24 And I've -- I'm employed by the
25 State of the California and the Department of

1 Industrial Relations. I'm the assistant to the
2 chief of CAL-OSHA. And in my job, we're concerned
3 about protection of life for workers and their
4 health problems as well. And I transfer this type
5 of concern to the Presidio.

6 And I feel that this RAB has done
7 remarkably well over the past -- particularly over
8 the past year and in identifying problems and
9 trying to solve them.

10 MR. KERN: Thank you very much.

11 I guess it might be a worthwhile
12 moment to also mention what the RAB does not do.

13 This body does not really review
14 reuse plans at the Presidio nor focus on the
15 cleanup of the site. So we won't be getting into
16 discussing various options at the Letterman site.
17 We won't be talking about the public health
18 service hospital reuse, only in terms of how it
19 might affect or be affected by the cleanup.
20 That's where we will review the reuse of any
21 particular site on the Presidio.

22 I was asked to mention once again
23 that all of you, if you would, please, at some
24 point during the evening, sign in at the table.
25 And there are membership applications available

1 for you. You can either turn them in tonight to
2 Ina or I. Believe send them into, yes.

3 Okay. So right in about this time
4 during the evening, which would have taken just a
5 few minutes, I thought I would ask, if everyone
6 has an agenda, we'd like to approve that agenda.
7 And I thought I would give the rest of you a
8 little bit of context for what tonight's agenda is
9 about and where we are in the whole process of the
10 cleanup at the Presidio.

11 As you are well aware, the Army was
12 the principal responsible party and agency for the
13 cleanup of the Presidio. And we worked with the
14 Army for many years until it became evident to
15 them that it was perhaps a better option for them
16 to turn over that responsibility for cleanup to
17 the land manager at the Presidio Trust, who could
18 perhaps handle that job in a more streamline
19 efficient way than the Army was doing at the time.

20 I think that was the right choice
21 in, I think, the RAB is now very supportive of the
22 new direction. We are -- we're experiencing, I
23 would say, a great collaborative relationship.
24 And we want to see that through the feasibility
25 study process. Now, what is -- you are going to

1 hear about this many times.

2 But I will just start out giving you
3 a very brief overview of what this process is. It
4 starts off with essentially an appraisal of what
5 the site looks like, whether the -- generally what
6 kinds of contamination are found. Is it really
7 significant? Is it very hazardous? And that's
8 done in a preliminary assessment phase.

9 Once those sort of general screening
10 happens, there are a variety of steps leading to
11 what's called a Remedial Investigation Step. And
12 that's where the responsible party will go out and
13 sample these sites; collect data, ground water
14 data, oil data to understand what contaminants
15 might be found. That particular process went on
16 here for a number of years.

17 And there were five various
18 documents that were entitled "Remedial and
19 Investigation" when the Army was here. None of
20 those documents ever received final approval for a
21 variety of reasons. Army went on then to develop
22 what's called "feasibility study" where the
23 various alternatives for particular sites are laid
24 out, costs, and in a variety of ways to perform
25 the cleanup are examined in that document.

1 And the Army produced two of those
2 documents. And neither of those documents was
3 found acceptable by the stakeholders here at the
4 Presidio. We are now in a phase where the
5 Presidio Trust is principally managing the
6 feasibility study process. And we are in the
7 process of creating that document.

8 There are a number of steps along
9 the way involving assessment of human health
10 risks, risks to the environment, setting cleanup,
11 number in a variety of technical steps. Tonight
12 we're going to be looking at under Item C-4-C, the
13 ecological risk assessment. You will find that
14 there will be some rather technical things
15 discussed there.

16 And I'm sure our long-time
17 consultant Michelle will make it very accessible
18 to everyone as she knows best.

19 There will be a variety of other
20 additional steps leading up to the protection of
21 this document. It's always been our desire and
22 our hope that along the way that we will be part
23 of the document production. It will be working
24 with the Trust along the way. And we have been
25 doing so.

1 We've been commenting most recently
2 on the work planning that would -- that describes
3 how the feasibility study will be produced.
4 That's a document that the Army probably we would
5 have never seen from the Army. And we would not
6 have had the opportunity even to comment on that
7 document. There have been sampling plans that the
8 Trust has put out to us for our review.

9 And those sampling plans are to fill
10 in data caps that were missing while the Army was
11 here. And we've had the opportunity to comment on
12 those plans as well. Throughout the rest of the
13 summer and the fall, there will be more additional
14 technical steps leading to the protection of this
15 document as I've said before. And that's where
16 you're going to be coming into this process.

17 It's very important, very critical
18 part of this process where the alternatives for
19 the different sites will be laid out. And a --
20 eventually after that is complete, there will be
21 what's called a "Remedial Action Plan" that
22 describes -- and a referred alternative. And
23 everything will be finalized and decided between
24 the cleanup, and they will begin.

25 I think that gives a little bit of

1 context. So tonight we're going to be talking
2 about one piece out of that process. That will
3 probably be some other commentary around the
4 table. And so I will come back to approving the
5 agenda. But any other comments by RAB members,
6 please?

7 MS. CHEEVER: Well, Doug, in support
8 of your wonderful summary of everything, I wonder,
9 at the risk of the adding more information, if
10 it's worth adding that this feasibility study
11 we're talking about, which is called the main
12 installation feasibility study, is in itself just
13 one of several units of the environmental cleanup
14 at the Presidio.

15 But it's one of the largest and most
16 important. It's almost all soil and ground water
17 contamination except for that which came from
18 petroleum pipelines and storage tanks, which was a
19 very significant -- that's mostly completed in
20 some specialized areas. Such as Crissy Field was
21 done on a special fast track cleanup so the
22 restoration could begin. And that's not included
23 in this.

24 But what is being talked about
25 now -- the main installation is all over the

1 Presidio -- includes landfills and other types of
2 areas, really several dozen sites, potential
3 cleanup sites.

4 MR. KERN: Thank you, Julie.

5 Any other gaps that RAB members
6 might want to have filled in from our physicist?
7 Sam? Please.

8 MR. BERMAN: Well, I would -- I'd
9 like to perhaps, Doug -- Doug, you would comment
10 on the significance of the D.T.S.C. and their role
11 in this because they play a very important role.
12 And I don't know if you really brought that out.

13 MR. KERN: That's a good point. We
14 have a variety of regulators sit on the board.
15 And the Department of Toxic Substances Control --
16 they are the lead regulatory agency. It's a state
17 agency because this is not actually a Superfund
18 site. State will review this document, and
19 they'll have the sign-off basically with the
20 concurrence of other agencies.

21 But they're the principal lead
22 agency for review of all the technical cleanup
23 documents and the plans. And that's Henry's
24 project manager for that. Very good. So we have
25 a little bit of context, a little bit of

1 orientation. Are there any other things that
2 people like to add or change about tonight's
3 agenda?

4 Okay. Seeing none, why don't we
5 move on to our committee reports. And would that
6 be Mark tonight? Very good.

7 MR. YOUNGKIN: A lot of the
8 discussion that takes place among the community
9 members of the Restoration Advisory Board happens
10 in committee meetings and working groups. And our
11 charter and bylaws provide first five standing
12 committees that are planning, restoration and
13 compliance, outreach in education, rules and
14 membership.

15 Now, the membership committee is
16 busy right now. It looks like it will be pretty
17 busy for the next few months. Our rules committee
18 was busy last year where we revised and rewrote
19 our charter and bylaws. And that was quite a long
20 process. But we finalized that in January.

21 Our outreach in education committee
22 regularly works on articles for the newsletter
23 that's put out quarterly by the Presidio Trust as
24 well as other ads and outreach-type efforts. And
25 every fourth Tuesday of the month, we have a

1 regular committee meeting we refer to as the
2 "Planning Committee Meeting."

3 And this is a committee meeting of
4 the whole. Pretty much all the committees meet on
5 this at this meeting in report or discuss issues.
6 And they pretty much just talk about any issues
7 that are going on at that time. And I usually
8 give a short report on the past committee meeting
9 at this time. But I missed the last one due to my
10 vacation.

11 So it's -- Julie Cheever has
12 volunteered to give a brief report on the last
13 planning committee meeting.

14 MS. CHEEVER: Well, in our last
15 planning committee meeting, we basically discuss
16 two things:

17 One is something that is going to be
18 on the agenda later tonight called the "commissary
19 seeps." And these are some seeps near the
20 commissary, which is also near the restored
21 wetlands of Crissy Field that showed elevated
22 other levels of petroleum compounds.

23 And just as an example of how the
24 committee works, we're going to have a formal
25 presentation on it tonight by the Trust. But at

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1 the committee when we -- not ever since this was
2 discovered, the Trust has been giving us regular
3 updates both at these meetings and at the
4 committee.

5 And the committee you can ask even
6 more questions no matter how basic you think your
7 question is or give your opinions and also look at
8 maps more carefully and really air any concerns
9 that you have.

10 I won't go into the content of what
11 was put into it because it's going to be presented
12 again by George later on the agenda with probably
13 everything we heard two weeks ago and more. The
14 second thing we discussed in the committee was
15 membership and our membership drive.

16 And we need new members because
17 there is always an actual attrition when you have
18 a board like this. We've been discussing how to
19 go about finding new members; and, of course,
20 we're all thrilled that so many people are
21 interested in it.

22 We have been discussing this for
23 some time. And what I did in this particular
24 meeting is we discussed finalized wording of the
25 ad, in which many of you may have seen.

1 We take that, circled among us by
2 E-mail, which is one we communicate with another
3 and where we talked about in a moving place, which
4 is not in the Chronicle but on E-mail outlets that
5 people now know of where interested people might
6 hear and encourage people -- also let anybody know
7 we are talking about new members.

8 And so we talked about what our
9 procedure would be including inviting you here
10 tonight. So I want to add my colleague's welcome
11 and say we're very glad you're here tonight.

12 MR. KERN: Thank you for those
13 reports. Very good.

14 And just to update those of you in
15 the audience, we'll be having these two reports
16 here under Item 4-A and B, and then we'll be
17 having a break prior to Item C. We encourage you
18 in and invite you to meet with more members, talk
19 to us, and engage us about questions that you
20 might have about participating on the board.

21 So let's move on to our reports and
22 discussions. And that would be Chris Nelson on
23 the project status update.

24 CHRIS NELSON: Doug, as Doug
25 mentioned earlier, the Presidio Trust is revising

1 the final feasibility study that was completed by
2 the Army in 1997.

3 We're going through a number of
4 steps. The feasibility study is rolling along in
5 full steam now. And in January of this year, we
6 procured a contract with a team of consultants led
7 by Callanowski. They also have on board Harding
8 Lawson Associates and a couple of other people
9 this evening on a couple of the items.

10 At this time we are going through a
11 chemical screening process wherein we look at all
12 of the chemical data that's been collected to
13 date.

14 And there's a process wherein you
15 screen out, looking for significant chemicals
16 based on currents of those chemicals, the number
17 of times that they've been seen, and also
18 comparing the chemical concentrations to naturally
19 occurring background levels of metals and whatnot.
20 All of these bullets you see here were presented
21 at previous RAB meetings.

22 They were presented in the work plan
23 for the feasibility study, which was approved by
24 all the stakeholders and is currently sitting in
25 our library if anybody will like to try to get up

1 to speed on that. At the last RAB meeting
2 earlier, Callanowski presented for the Trust how,
3 through this revised final feasibility study, the
4 Trust was going to develop revised human health
5 cleanup members for soil.

6 And that was presented last May
7 or -- excuse me -- just last month. So they've
8 given us those tables and those figures with those
9 numbers. We've reviewed them recently with the
10 regulatory agencies. In fact, we had a meeting
11 today to discuss that.

12 And it appears preliminarily at
13 least that the D.T.S.C. is on board with the
14 approach that we're using. So we feel confident
15 that we'll be able to move forward with the rest
16 of the feasibility study and incorporate this
17 approach. Another thing that was done and is
18 still ongoing, as part of the feasibility study,
19 is to identify remedial technologies.

20 And the feasibility study has a
21 number of screening steps that screen out
22 inappropriate or inapplicable either technologies
23 or alternatives that may not be appropriate for
24 certain types of sites at Presidio.

25 And so Callanowski and their team

1 have been compiling a list of technologies that
2 would be applicable for cleaning up
3 environmentally contaminated sites. And they
4 could translate the information through us,
5 through presentations, and short sections of
6 documents to take a look at. What we're going to
7 be talking about tonight is the last bullet.

8 And in addition to protecting human
9 health through the derivation of cleanup levels,
10 we're also going to be protecting the ecological
11 receptors of Presidio, primarily plants and
12 animals. And Bridgette DeShields from Harding
13 Lawson Associates, who is part of the E.T.I. team,
14 will be presenting the approach much like Michelle
15 had done last month for human health.

16 Also as part of the main
17 installation feasibility study, if you recall from
18 the work plan, we were presenting the approach of
19 having a number of technical meetings with the
20 regulatory agencies to discuss the approach as it
21 was moving forward.

22 We wanted to do that to avoid
23 getting a lot of comments that we were sort of
24 sidelined by in the end when we are trying to get
25 the document out. We feel this is a very

1 pro-active approach.

2 We have worked very carefully with
3 D.T.S.C. and the regional board and the RAB to get
4 their early buy-in at the approaches that we're
5 using. The past meetings that we've had were last
6 May. We discussed the issue of hexavalent
7 chromium in ground water, which is a puzzling
8 issue here at the Presidio.

9 We are waiting some responses from
10 the D.T.S.C. and the regional board on that issue.
11 Today we had a meeting discussing human health
12 cleanup members. And we also settled a day for
13 the ecological cleanup members. Technical meeting
14 we will be two -- June 27, two weeks from today.

15 And I know we will be putting out an
16 agenda. And everybody that's on the -- everybody
17 that's part of the Presidio community will be
18 invited to attend.

19 Last but not least, we'll be having
20 a landfill regulations and other meetings at the
21 Presidio. We need to discuss the appropriate
22 landfills that apply and to make decisions about
23 cleaning up these sites and also additional what
24 they call appropriate -- of course, when I have
25 to, I forget the acronym. Applicant and

1 applicable and -- sorry.

2 ARAR's are essentially a list of
3 regulations and laws that apply. And they have to
4 be addressed in the feasibility study when making
5 a decisions about cleanup.

6 One other thing that going on that
7 Doug had mentioned earlier -- and I will just
8 touch upon it briefly -- we put together a field
9 sample plan to address the main installation
10 sites. That field sample plan was presented to
11 the RAB and the regulatory agencies in late April.

12 We have since received comments from
13 the RAB. And I hear that we are going to be
14 receiving comments from the regulators very soon.
15 We'll endeavor to get those comments incorporated,
16 and hopefully at the next RAB committee, we may be
17 able to discuss how some of the concerns of the
18 RAB and the community and the regulatory agencies
19 are going to be addressed throughout our comments.

20 The preliminary schedule on the
21 field work for that sampling efforts is that we
22 will like to get in the field by the second week
23 of July. There's going to be a number of
24 activities including trenching in some of the
25 landfills, soil borings, installation monitoring

1 wells, and the like.

2 We also have a ground water
3 monitoring program going on here that was
4 initiated by the Army. We're continuing that
5 program at this time. For the past several
6 quarters, we've selected samples at sites that
7 have remedial decision documents signed and
8 actually have requirements for quarterly or annual
9 monitoring.

10 We recently received a document for
11 the last quarterly monitoring event that occurred
12 in December, and I was turning that forth this
13 evening. And just this week, contractor we have
14 been Montgomery Watson, who did a lot of work for
15 the Army and who has some real good knowledge of
16 the sites here, is just initiating another round
17 of sampling for us at four sites.

18 Last but not least, what I'm going
19 to update to you today is that, along with the
20 work that's being done on the feasibility study
21 for the main installation, we also have a number
22 of other environmental restoration programs that
23 need to be addressed. And there's just not enough
24 bodies currently on staff and with our current
25 consultant to do that.

1 So we put out solicitation a few
2 months back, and we are proud to say that we've
3 hired three. We have preliminary contracts at
4 this point negotiated with Harding Lawson
5 Associates in Novato; U.R.S. Corporation of San
6 Francisco; and Treadwell & Rollo Corporation of
7 San Francisco as well.

8 One of the things that we liked
9 about this mix of firms is that we had a small, a
10 medium, and a large firm doing this work. So we
11 felt we had spread it across the sampling of firms
12 that we had interviewed a few months back. We
13 anticipate having those contracts released this
14 month, probably in the next few weeks.

15 And we're looking to get those firms
16 on board with the variety of task orders as soon
17 as we can. And you'll be hearing about those task
18 orders at their initiated -- in the upcoming RAB
19 meetings. Thank you very much.

20 MR. KERN: Thank you, Chris.

21 Ready to move on then? Any
22 questions by RAB members?

23 MR. LOLLI: One question: Are we on
24 schedule?

25 CHRIS NELSON: Oh, yes. We are

1 talking about remediation schedule? In some cases
2 we're actually looking to be a little bit ahead of
3 schedule with initiation of these task orders next
4 month.

5 MR. LOLLI: How about the financing?

6 CHRIS NELSON: Financing is all in
7 order.

8 MR. LOLLI: We have the money to go
9 ahead?

10 CHRIS NELSON: We've received two of
11 the four installments for the Army.

12 MR. LOLLI: Thank you.

13 MR. BERMAN: Sam, can you estimate
14 roughly what risks roughly would be for the three
15 of the new contractors that you mentioned that
16 it's possible just to give an idea of the
17 distribution attacks that they'll be considering?

18 CHRIS NELSON: Sure. As you are
19 going to hear in a moment from George Ford, our
20 geologist and earthmover, we have a site that is
21 near the commissary, which is basically a giant
22 grocery store and is still utilized by the Army
23 and other group of federal employees. There was
24 some former gasoline tanks there that leaked,
25 possibly some fuel lines that leaked.

1 And there's a significant amount of
2 contamination resting in the soil and shallow
3 ground water. We intend to release a task order
4 to one of these architect engineer firms to do a
5 variety of tasks, putting together solicitation
6 and bid documents to get construction contractors
7 on board, implementing interim removal action
8 plan, and then eventually overseeing the
9 construction as it is done or remediation effort.

10 And then that would probably tie in
11 later to a corrective action plan that they would
12 complete for us. Right. We also have a number of
13 other petroleum sites that we would be addressing.
14 And, as Andrew had asked, a couple of the sites --
15 I think if we get working on them now, we'll be
16 ahead of schedule if we can get them through.

17 It's going to be a very busy late
18 summer and fall. As we look forward with these,
19 there's the 2207, 2312 building area, which is in
20 a very critical path of both Tennessee Hollow
21 restoration and drive and the new wetlands.

22 And then there's also revising and
23 completing corrective action plan for
24 Building 1065, which I believe has historically
25 been essentially discussed by the RAB, and that's

1 been the remedy selection informally chosen. So I
2 think that one should be relatively seamless.

3 Last but not least, it's not being
4 mentioned at length tonight, but there is an
5 additional group of sites that's in the separate
6 area of the Presidio known as the "Public Health
7 Service Hospital Complex."

8 And there are a number of
9 environmental sites there that are going to be
10 addressed. Currently we're being addressed
11 through amending a record decision that was being
12 done by the Army, and we have some assistants
13 today from Callanowski on this.

14 And we also be able to initiate some
15 design activities at those landfill sites and some
16 of the other restoration sites there so that, when
17 we have a remedy selected, we can have some design
18 in place. And we'll be able to move forward with
19 the mediation. So that's the bulk of the work
20 that we anticipate releasing in the near future.

21 MR. BERMAN: That's to be
22 distributed over the three contractor?

23 CHRIS NELSON: Hasn't been decided
24 who is going to get what, but we are looking at
25 right now at qualifications of the various firms,

1 and we are looking at workloads and things like
2 that so we'll be able to distribute the workload
3 for those seeps.

4 MR. KERN: Now, okay. Now, it looks
5 like we're ready to move on with George.

6 MR. FORD: Okay. We'll talk about
7 the commissary seeps. This one I got for point.
8 Hey, I will even stand up and use it. It works.

9 As a little bit of background for
10 those of you who are new here tonight, shortly
11 after Crissy Field, the new tidal marsh of Crissy
12 Field, after excavation was finished last fall and
13 the fall of '99, seeps that contain gasoline were
14 found in the southwest corner of the marsh. And
15 this area is right in front of the commissary at
16 610 Mason Street.

17 The seeps were discovered because
18 some people walking around in the marsh noticed a
19 faint petroleum odor on the bank of the marsh at
20 low tide. The Trust went out, took samples of the
21 ground water that is seeping out on the bank, and
22 found that it did contain low concentrations of
23 gasoline and gasoline components.

24 We reported that to the water board
25 and pretty much everybody else, I think, and have

1 been working on the project ever since. We've
2 conducted monthly sampling of the seeps. Usually
3 in the first ten days or so of each month, we go
4 out and take samples of the seeps. The seeps have
5 been holding steady at roughly 0.4 to 0.5 parts
6 per million of gasoline.

7 This is actually below what's called
8 the "Point of Compliance Concentration Action"
9 level. It's essentially the cleanup level for
10 ground water in and around the tidal marsh. That
11 number is 1.2 parts per million for gasoline in
12 ground water. So the seeps don't seem to be
13 changing very much. The concentration is a little
14 bit less than half of what the action level is.
15 And they're holding fairly steady at that level.

16 We've been doing investigations in
17 the north parking lot on the commissary and more
18 recently in Mason Street to try to find the source
19 of the gasoline. We've been sampling the soil,
20 trying to find where the gasoline in soil occurs,
21 confirming that gas line in soil cause
22 contamination of the ground water.

23 And that's why we have gasoline in
24 the ground water that's seeping out on the marsh
25 bank at low tide. At the end of April, we drilled

1 34 soil borings. Most of them were located in
2 Mason Street. A few were located in the northern
3 margin of the commissaries of the north parking
4 lot.

5 And we have also recently, in fact,
6 earlier today had a meeting with the regulatory
7 agencies. And Doug Kern and Mark Youngkin were
8 able to attend to discuss what the results of our
9 investigations are and what the possible remedies
10 are. Next slide.

11 This is the marsh. And with the
12 commissary in the background, this is what we call
13 the north parking lot of the commissary. The
14 large parking lot that most people are familiar
15 with is off to the left of this picture in front
16 of the commissary. This is the loading dock. And
17 this is the extreme southwest corner of the marsh.

18 You can actually see in this picture
19 a very low tide. You can see where ground water
20 seeps out of the bank. And this is the area where
21 we've been taking samples. And we have found low
22 concentrations of gasoline in the ground water
23 that seeps out at low tide. Next slide.

24 On April 28 we drill holes all over
25 the place, put 34 borings down there, most of

1 which were in Mason Street. And, see, we used two
2 different drill rigs. The purpose there is to try
3 to minimize disruption of traffic on Mason Street.
4 We figured if we used to do drill rigs, we would
5 get done twice as fast. It almost put it that
6 way.

7 The borings were -- they were
8 roughly an inch and a half in diameter. We would
9 take a sample out of each, and then after we would
10 pull the drilling equipment out. We backfill the
11 borings with grout to make sure that nothing would
12 leak up with the surface. And what this fellow is
13 doing here is pouring grout into one of the test
14 holes.

15 This is a map that shows the
16 commissary. This is the building. This is the
17 north parking lot. There's a planner island right
18 there. Mason Street backs comes through. There's
19 a back path. Here's the southwest corner of the
20 marsh. This is the area where the seeps with
21 gasoline had been occurring.

22 The little round dots are a
23 hydropunch probe, where we did some ground water
24 surveys, long trials that you could see, before
25 this reddish blob came out, where the soil borings

1 that we did at the end of April.

2 If we could have the reddish blob
3 again, this is an approximate drawing of where we
4 have found high concentrations of gasoline in the
5 soil. Essentially between four and six feet below
6 the ground surface, there is a layer of gasoline
7 in the soil. And the concentrations range from
8 close to the action level. The action level for
9 soil in this area is 11.6 parts per million.

10 So the ground water action level is
11 11.2. The action level for gasoline in soil is
12 roughly ten times higher. In some of these soil
13 borings, we have discovered concentrations at
14 gasoline under Mason Street as high as 20,000
15 parts per million.

16 So we are substantially above any of
17 the applicable limits, and it's clear that
18 something will have to be done here. The most
19 recent development, from the Trust perspective, is
20 that we've been discussing it internally.

21 And the Trust has concluded that the
22 most effective way to clean up this problem is to
23 essentially dig out the soil, remove the soil, and
24 clean up to the petroleum action level for
25 gasoline, which is 11.6 parts per million. And so

1 that's the remedy that we are now focusing on.

2 It's really probably the most
3 aggressive remedy that you could come up with for
4 this site. The idea to get rid of the gasoline,
5 once it's gone, we would expect that the ground
6 water concentrate -- concentrations of the
7 gasoline in the ground water will decline below
8 where they are now.

9 The next steps for this project are
10 we're going continue to monitor the seeps when we
11 will be doing the June sampling this week. We
12 will be drilling a few more soil borings. We
13 didn't find all the limits of the soil. It makes
14 it a little bit farther to the west that we've
15 extended borings so far. So we'll be doing a
16 little bit of additional drilling.

17 We'll use the data from that
18 drilling that we'll be doing shortly to finalize a
19 source removal plan that there will be submitted
20 to regulators in the RAB and collect everybody's
21 plan comments. When we collect the comments,
22 we'll expect to remove the gasoline.

23 And we'll start the cleanup, and we
24 are scheduling that for early August and September
25 although there's a lot of work to be done between

1 now and then. Yes?

2 MR. O'HARA: If you find that there
3 are concentrations of gasoline underneath the
4 commissary, how would you propose to take care of
5 that problem?

6 MR. FORD: Well, we're pretty
7 confident at this point. We have a number of test
8 bits that were excavated back closer to the
9 commissary building, and those came up clean. So
10 it looks like this problem exists in the north
11 parking lot and under the street.

12 So at this point, we will say it's
13 very unlikely that you will end up chasing
14 contamination all the way back under the building.

15 MR. BERMAN: Have you made any
16 borings that went after discovering these high
17 concentrations? Have you made a deep boring, at
18 least one, to estimate how far down the access
19 petroleum lies?

20 MR. FORD: We actually have not. I
21 think all of the data that we have suggests that
22 it's a shallow contamination issue. The reason we
23 believe that is that it follows a nearly common
24 pattern that you see in cases of petroleum
25 contamination. Petroleum floats on ground water.

1 So what you typically see, in a
2 petroleum contamination case, is that above the
3 ground water, you have sort of a chimney or a zone
4 where the petroleum goes down through the soil.
5 And it moves more vertically; it doesn't spread
6 out very much. When it hits the ground water, it
7 floats, and it tends to spread out.

8 And it will spread out, and
9 eventually the fluctuation of the ground water
10 during the seasons will lift this sort of wide
11 thin layer of petroleum up and down. And it
12 smears it out in the soil. And so what you end up
13 with it might be considered like an upside down U,
14 a centric mushroom. They're sort of a same where
15 the contamination went down to the ground water.

16 And then there's a big flat part
17 where it extends out over a large area. And as
18 far as we can tell, all the soil sample or the
19 soil data that we've got so far suggests that that
20 big red blob we were showing you is a smear zone.
21 You would expect that to be kind of a thin layer
22 of contamination, maybe two to three feet thick.

23 When we actually do get about
24 cleaning it up, we will have to do some sampling
25 in the bottom of the excavation. We will do that

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1 to try to avoid that. It extends out deeper. And
2 if, in the event that it extends out deeper, we
3 might have to do something else to extend that but
4 typically because the petroleum floats, petroleum
5 problems don't get very far out.

6 I mean, once it hits the ground
7 water, it goes sideways and stops going. It stops
8 penetrating vertically.

9 MR. BERMAN: Is it your feeling that
10 the petroleum that's there -- it seeps from an
11 underground tank that's still yet to be
12 discovered, or is it just some dump of the
13 petroleum that was just dumped there and left to
14 dissipate?

15 MR. FORD: Well, I think we have a
16 lot of ideas about what might have happened. It's
17 my personal opinion that there are probably no
18 underground storage tanks left down there. There
19 may have been at one time.

20 But what we've done is a fairly
21 extensive utility locating and metal detection
22 survey and haven't found anything that looks like
23 a tank. We do know that the historical uses at
24 the commissary. And in that north parking lot
25 area in particular, there was a 15,000 gallon

1 above-ground storage tank right in the middle of
2 that north parking lot up until about 1945.

3 That's just like the holy grail of
4 petroleum leakage, you know, a large tank that was
5 there a long time ago when people were not very
6 concerned about spills. The other thing is, as
7 we've been excavating test pits down there, we're
8 finding pipes that crisscross all over the
9 place -- all of which appear to be abandoned; but
10 they look like old petroleum distribution pipes.

11 So, you know, again we won't know
12 for sure until we actually dig a hole. But I
13 think it's more likely that this is an old spill
14 that results from maybe from the former
15 above-ground storage tank. Parts of it could also
16 be related to leakage from the pipelines.

17 I don't think we're going to find
18 any tanks, underground tanks, there.

19 MR. BERMAN: Thank you.

20 MS. WRIGHT: George, first of all, I
21 wanted to thank you all so much for coming to the
22 most aggressive remedy possible. It sounds
23 terrific. Thank you again for doing all the
24 testing to this point.

25 My question is regarding the time

1 number. And so we -- you know, we have to respect
2 their -- we have to maintain their ability to use
3 the building. And the other thing that is going
4 on down there is that the subsurface is just
5 chock-full of utilities. They're under the bike
6 path; they're under the street; they're in the
7 parking lot.

8 All of them are active. It looks
9 right now like all of them have to be maintained
10 in and serviced. There really isn't something
11 that we can shut off temporarily and get it out of
12 the way to clean up. We will actually have to
13 work around all of the fiber-optic cables and
14 water pipes. And so, you know, all of that stuff
15 can be done.

16 But it takes some time to lay out
17 the plans so that when we do open up the street
18 and go to work there, we know that what we're
19 going to do will be effective. And, you know, and
20 then we can do it in one sweep so we don't have to
21 go out and bust up the streets several times.

22 MS. WRIGHT: Okay.

23 MR. FORD: So the short answer is is
24 that I think August, September is fast track.

25 MS. WRIGHT: Thanks.

1 MR. FORD: Sure.

2 MR. LOLLI: What do you mean when
3 you say "source of gasoline"?

4 MR. BERMAN: Well, we don't know
5 what the precise source of this gasoline is. But
6 there were plenty of old tanks in the commissary
7 area because there used to be a motor pool area.
8 And there were garages, vehicle shops, pump
9 islands, above-ground tanks. There were some
10 other areas of the commissary that were below
11 ground tanks.

12 So there's really no shortage of
13 historical uses in the commissary area that might
14 have resulted in a leak of gasoline. I should
15 point out also that we're -- almost as an aside,
16 there is some diesel in the soil in this, the same
17 area. It's more limited. It's of a more limited
18 extent, but this is something that will also be
19 addressed as part of this cleanup.

20 So whatever we find there will be --
21 we're planning to take it out.

22 MR. KERN: Any other questions for
23 George? Any questions from any member of the
24 public on this topic? It's a public meeting, and
25 we welcome the question.

1 If you would -- if you could stand
2 and identify yourself, that would be great.

3 VOICE: Sure. Gloria Yaros.

4 Perhaps a naive question but are there no records?
5 It sounds like that part of the problem is finding
6 where all of these contaminants are. The Army did
7 not leave records or maps?

8 MR. BERMAN: Well, there are
9 records, but they aren't -- they may not be the
10 sort that you think of.

11 In fact, the history of the
12 commissary is pretty well known, I think, mostly
13 thanks to work that Mark Youngkin, who is the RAB
14 co-chair, did a few years ago. They're the kind
15 of records that can typically be used in aerial
16 drafts, which are available, you know, going back
17 50 or 60 years at least.

18 The Army did have some records, but
19 you have to understand in the old days, there
20 really wasn't much regulation of petroleum storage
21 or transfer; it was just sort of handled. And
22 people didn't keep a lot of detailed records on
23 it. It was only really in about the early 90's
24 that detailed records of product inventory and
25 possible leaks were -- were kept.

1 So we -- you know, there -- we're
2 really looking at the whole history of the
3 commissary. And then there is plenty of
4 historical evidence to suggest that there were
5 lots of different possible sources there. The
6 other thing is this site was redeveloped. And now
7 the building that is there now is built in 1984.

8 So all the stuff that was there was
9 dozed off the site and removed sometime prior to
10 1984. So we didn't really look at the physical
11 structures that were there before the existing
12 commissary.

13 VOICE: Thank you.

14 MR. FORD: You're welcome.

15 MR. KERN: Yes, sir, please.

16 VOICE: Hi. Ed Franklin. Pretty
17 impressive report.

18 My question is it strikes me that
19 this sort of thing happened because of somebody
20 had to have noticed it and it was kind of an
21 exception. I guess my question would be how was
22 budgeting -- if we do this, is there enough budget
23 for other things if these are contingency planning
24 to their sort of thing?

25 MR. FORD: Yes and no. I would say

1 that the Trust does have a budget for petroleum
2 cleanups.

3 Generally that budget was arrived at
4 by making some assumptions about how many tanks
5 may have existed at a particular place and kind of
6 allowing just a rule-of-thumb for each tank. And,
7 you know, so in some cases where we think there
8 were a lot of tanks there, we've got a big chunk
9 of the budget allocated for that. In other
10 places, we don't have so much.

11 I would say that the micro-economic
12 approach is probably not worth doing in this case.
13 I believe there's enough money in the remediation
14 budget to clean up this problem, clean up any
15 other problems that are identified at the
16 commissary later on when the full -- when the
17 entire site study and do all the other cleanups
18 that we have at the Presidio.

19 But, you know, again it's --
20 we're -- we're still in very early stages. So
21 it's -- we're not really in a position where we
22 can say yes we're going to spend \$220,000 of the
23 commissary, and that's covered. And I flow out
24 that number. That's just a number I pulled out of
25 the air. We haven't cost anything.

1 We don't know how much it's going to
2 cost.

3 MR. KERN: Anything else? Yes,
4 please?

5 VOICE: Hi. My name is Tony Flores.
6 Kind of a two-part question: How is the survey
7 area determined, and then had with the history as
8 a motor pool, why wasn't that area surveyed
9 before?

10 MR. BERMAN: If I can answer, maybe
11 I will answer the questions in reverse order. The
12 commissary area really wasn't surveyed at all.
13 The Army didn't get around to it. They had a plan
14 to do a detailed investigation of the whole
15 commissary, but the plan was never implemented.

16 And, you know, I think, had the Army
17 done their detailed survey, which I think included
18 something like 70 or 80 borings over the entire
19 commissary property, it -- in all likelihood, they
20 would have found this. But the extremely limited
21 amount of sampling that was done in this area
22 before just didn't discover it.

23 As far as how we laid out our
24 borings, we -- it's kind of -- it's almost an art
25 in the sense that we look at the historical data

1 that's available. And we do have aerial photos
2 that show small buildings that we know were housed
3 gasoline pumps. We see larger buildings that we
4 know housed auto shops.

5 And so we look at those and try to
6 make sure that that area is covered. We also use
7 our own judgment about how far to space the
8 borings out. And I can tell you, in this case, we
9 did some 30 some borings in this site -- all in
10 one day.

11 And the judgment that I made about
12 the east-west extent of the contamination turned
13 out to be wrong on the west side. And, I mean,
14 we've covered it; and we know where the eastern
15 limit of the contamination is. But on the west
16 side, we haven't found the limit. So we'll have
17 to go back probably for at least another half a
18 day and explore a little farther out.

19 And, you know, and our hope is that,
20 as we chased this to the west, that it will end
21 soon. If it doesn't, if it doesn't, we'll tell
22 you about that next month. And we'll have to make
23 some plans about what to do next.

24 MR. KERN: Let me go here and then
25 these two folks.

1 MR. HULTGREN: Yeah. Follow up on
2 that. You said that the Army did not get around
3 to doing the complete or once we'll have this
4 survey of the commissary area. Is the Trust doing
5 that, or has the Trust done it?

6 MR. FORD: The Trust has not done it
7 yet; the Trust is planning do it. In fact, I may
8 have went and gone over this too quickly. We call
9 this an interim source of removal because we're
10 just focusing on very small area right next to the
11 marsh.

12 We recognized that there is probably
13 trouble in other areas of the commissary. Our
14 plan right now is to do an overall investigation
15 of the commissary about the time that the builder
16 leases terminate because once those leases
17 terminate, we should have better access to do
18 sampling beneath the buildings if that's judged to
19 be necessary.

20 And it may be because, you know, the
21 commissary buildings is quite large. It has a big
22 footprint. And I don't know the exact date that
23 the leases end, but I believe it is in 2002. Was
24 that -- it's, you know -- it's about 18 months or
25 two years out. So our plan right now is we know

1 that we have a problem here at the corner of the
2 marsh.

3 And so that's what we're focusing on
4 our attention right now. And we will look at the
5 overall commissary and the most exchange together
6 in the future.

7 MR. PORTUGEIS: Hi. My name is Ross
8 Portugeis. Maybe you don't know the answer to
9 this, but let me ask anyway: To what extent does
10 this problem exist elsewhere in the Presidio --
11 this type of contamination and to indicate how
12 much has been corrected and how much is there to
13 go? That's probably impossible to answer, but I
14 ask it nonetheless.

15 MR. FORD: I can give you a general
16 answer. See, in the petroleum, there are
17 petroleums spills in many locations in the
18 Presidio. Quite a few of them have been cleaned
19 up by the Army. Some the Army cleaned up to such
20 an extent that we're confident that it's done.
21 Nothing else needs to be done.

22 There were other cases where the
23 Army did things like removed a tank; they removed
24 grossly contaminated soil immediately surrounding
25 the tank, but then they backfilled the hole and

1 moved on. And they didn't chase over out every
2 molecule of petroleum in the soil of ground water.
3 So some of those cases where the Army removed the
4 tank will have to go back to do further work.

5 And we're also -- you know, the base
6 is such that we find new things all the time. I
7 mean, I would say roughly once every six weeks to
8 two months some type of new tank or some that
9 nobody knew about, for which there are no records
10 and in its discovery. So when we find those we
11 have to make a judgment about, if it represents an
12 acute problem, we jump on it right away and try to
13 fix it.

14 If it looks like it's a little
15 probability of causing the problem, we sort of put
16 it on the bottom of the list for when we get
17 around to it. But they did -- you know, the Army
18 has -- there was very large heating oil of
19 distribution by pipeline system going all over the
20 base. Virtually all of that was removed by the
21 Army.

22 I mean, so they did. They completed
23 a lot of work. But there is still quite a bit
24 that has to be done.

25 MR. KERN: Yes, sir.

1 VOICE: Hi. I'm Sum Rata. You
2 mentioned that you are going to haul off the oil
3 offsite in the landfill, I assume. If the soil is
4 being hauled off, who is going to sign the minute
5 Trust? If the Trust is -- if the Trust is signing
6 the minute customer, then how worried about
7 official liability if the Trust can be left
8 holding the Trust?

9 MR. BERMAN: Well, the Trust is in
10 line -- you know, in the line of fire for
11 liability anyway.

12 A Trust employee most likely mean
13 they will be signing the manifest. We have not
14 decided exactly where we're going to dispose of
15 this soil. A lot of depends on how much we get,
16 how wet it is when we pull it out of the ground,
17 and also what they -- recycling of the disposal
18 environment looks like up now at the time that we
19 are doing it.

20 I would say that in terms of
21 liability, this particular site is not that it
22 does not present that much of a disposal liability
23 because it's petroleum contamination. And, you
24 know, petroleum wastes -- we have a wide variety
25 of places that we can send them.

1 We also have the option. There's a
2 company called T.P.S. in Richmond that will take
3 soil that contains petroleum, and they essentially
4 cook it so that the petroleum comes out, and it's
5 essentially a form of soil recycling. That's one
6 of the disposal options that we'll be looking at.
7 So I probably will be signing manifests.

8 But we're hoping that it won't turn
9 out badly for the Trust in the long term. We try
10 to be very careful in our disposal of waste from
11 the Presidio -- is something that we try to track
12 very carefully. And we make sure that we know
13 where our soil is going.

14 We try to make sure that the people
15 we are landfillings or the facilities that we send
16 it to are well capitalized following all the
17 regulations and dotting all the I's and crossing
18 the T's. So we do everything we can to try to
19 keep that risk low.

20 MR. KERN: George, thanks for
21 fielding all these questions.

22 MR. BERMAN: My pleasure. Thank
23 you.

24 MR. KERN: I will like to also make
25 one other opportunity before we take a break. If

1 anyone had a question from the audience regarding
2 RAB participation for the selection process that
3 you feel other folks might be interested, I could
4 take a couple minutes and answer those questions
5 if you had that at this point.

6 Yes, sir.

7 VOICE: Tony Flores again. How many
8 new members are you looking for, and how long did
9 you expect it to take if we decide on who the new
10 members will be?

11 MR. KERN: I think it's in the range
12 of perhaps seven to ten folks, somewhere in that
13 time frame. I think there were people that were
14 not able to make this month's meeting that we
15 talked to that wanted to have the opportunity to
16 come to a meeting. So this process has taken some
17 time in the past. And we encourage those of you
18 who are interested to keep coming to meetings.

19 Is there anyone from the membership
20 committee who will like to take a stab at that
21 answer? I mean, it's taken three, four, five
22 months really to get the whole thing done between
23 because we have a monthly meeting and we're going
24 to have at least two to just introduce people to
25 process.

1 And we need to accept your
2 applications the committee members to meet. And,
3 of course, everyone is a volunteer by review
4 those. And we discuss them, and we may have a
5 meeting, an additional meeting, where we invite
6 folks back and have a discussion with them and get
7 to know you a little bit more, those things that
8 have happened in the past.

9 So when it's all said and done, it
10 could take four or five months.

11 VOICE: Thank you.

12 MR. KERN: Maybe that's optimistic.
13 Yes?

14 VOICE: Ed Franklin again.

15 Are you expanding the size of the
16 committee or --

17 MR. KERN: The RAB has been -- at
18 times we've had up to 28 members. But because of
19 people being away, attrition, the variety of
20 reasons, it's hovered around 22, 23 people. So
21 it's just kind of a juggling thing. We try to
22 have new people come in on that range of 25 to 28.

23 MS. CHEEVER: Just an additional
24 comment on that. As I recall, the bylaws provide
25 that there's a range of the number of RAB members.

1 And I can't remember. It seems to me it's between
2 22 and 28 or something like that.

3 MS. CHEEVER: Or 20 to 30.

4 MR. BERMAN: 20 to 30.

5 MS. CHEEVER: 20 to 30?

6 MR. BERMAN: Right.

7 MS. CHEEVER: Anyway one of the
8 reasons for looking to new members now is to
9 increase from the minimum to near the maximum
10 because we're anticipating there will be a lot of
11 work to be done in the next couple of years.

12 One other point is -- and that is in
13 the past at least -- the people who are qualified
14 but are not initially chosen are still put on in
15 the sort of a -- what would you call it -- a
16 holding pattern or a possible category for future
17 memberships.

18 So even though there may be only
19 seven or eight members now, there is turnover from
20 time to time. And those who are, as I say, are
21 qualified -- we could put on hold if you want.

22 MR. KERN: Anything else? Well,
23 very good. We'll take a ten-minute break right
24 now and reconvene at about quarter to 9:00. We'll
25 restart -- feel free to mingle with us, talk to

1 us, ask questions. And we'll reconvene at quarter
2 to 9:00.

3 (pause in proceedings)

4 MR. KERN: Bridgette?

5 MS. DeSHIELDS: Good evening. And
6 I'm going to talk a little bit tonight about
7 ecological cleanup levels for the Presidio. And I
8 believe many of you have seen this slide before.
9 This is just the overview of the F.S. process.
10 Chris went over a little bit of this earlier
11 tonight.

12 And you heard her talk previously
13 from Michelle Callanowski about the human cleanup
14 levels. And tonight I'm going to focus on the
15 cleanup levels at the environmental or ecological
16 receptors. You heard a lot about human health
17 risk assessment before about how we do human
18 health reassessment and do human health levels to
19 protect humans.

20 The risk assessment processes are
21 kind of similar. You will see a lot of the same
22 steps as we go through discussing this tonight.
23 But there are some things that are obviously
24 different, different types of receptors.

25 And the human health risk

1 assessment, you just have one receptor -- humans
2 for ecological assessment. We look for a variety
3 of different types of plants and animals.

4 All are -- the exposure pathways are
5 also different like congestion of food items as we
6 see as we go through. So what is an ecological
7 risk assessment? So it's a study that we conduct
8 to look at how likely it is that ecological
9 receptors plants and animals will be adversely
10 affected when they're exposed to chemicals.

11 We're going to use standard
12 ecological risk assessment procedures to develop
13 levels in the cleanup levels in the Presidio.
14 These include methods developed by E.P.A. and Cal
15 E.P.A. We're going to be basing our assumptions
16 and our approach, usually a safe approach as the
17 Army did.

18 But we're going to be re-evaluating
19 the assumptions that they use, making sure they're
20 up to date, making sure they're appropriate for
21 future use of the park of the Presidio. Three
22 main components of an ecological risk assessment:

23 First part we want to identify the
24 types of habitats that are present on the Presidio
25 and the types of plants and animals that might be

1 present with the end-zone habitats so we can
2 determine what kind of species that might be
3 exposed to chemicals.

4 So while now we might be looking at
5 extensive species, this might be an important part
6 that we go through. There is a lot of protective
7 species at Presidio. Then we are going through
8 the potential pathways. They are how they might
9 be exposed to chemicals.

10 So we are going to look at to each
11 species, and we're going to develop an assumption
12 about how the species are exposed to chemicals.
13 And then lastly, in the feasibility study, we'll
14 be determining the concentration chemicals at the
15 site and then using those to determine from site
16 to site whether there's an issue for ecological
17 risk.

18 This just kind of an overview slide
19 that shows steps at the ecological risk
20 assessment. Problem formulation at the top
21 here -- this is where we lay out the information
22 about the site, what kinds of habitats, what kinds
23 of receptors, what kind of chemicals were present.

24 The exposure assessments what I
25 talked about where we developed the exposure

1 pathways, how animals and plants are exposed to
2 chemicals, the effects assessment -- this is where
3 we look at how chemicals may affect the different
4 species. So how toxic are the chemicals?

5 And we integrate this altogether in
6 a risk characterization. We put together the
7 exposure and the effects and determine what the
8 risk is.

9 And into all of this goes to science
10 research monitoring. So all the data that's been
11 collected at the site, different surveys for
12 habitats and species and the different site data
13 that's been collected at the chemicals at the
14 site -- and some sites we're collecting additional
15 data or habitat additional data collected.

16 And at the end, we are going to make
17 a decision about what are we going to clean up.
18 So this is based on a chemical level approach,
19 follow these same steps as an ecological risk
20 assessment. We identify the species that might be
21 exposed. So I'm going to go into a lot of detail.

22 Each of these steps, the pathways of
23 assumptions, toxicity values is we're going to
24 talk about the effects of chemicals. What we
25 develop is -- I think you heard a little bit about

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1 this for human health risk assessment for Michelle
2 talked about reference doses.

3 We developed chemical concentrations
4 or doses at which we expect to see no adverse
5 effect or adverse effects. These are called
6 benchmark values, toxicity values, or T.B.V.'s.
7 We then find target risk level, develop for
8 mediation goals compared to background, and then
9 that becomes our final cleanup level.

10 So what kind of vegetation and
11 habitat do we have at the Presidio? We have a
12 number of native plant communities at the site.
13 We also have historic forest areas and landscape
14 habitat such as ground building and other
15 developed areas.

16 And then within each of these
17 vegetation types, we have different kinds of
18 habitats. Like around the shoreline, we have
19 foredune and scrub. We have marshes, salt water
20 marsh at Crissy Field, salt water marsh like in
21 the Tennessee Hollow area around Mt. Lake, open
22 water like Mt. Lake, and then inland parts of the
23 site.

24 Grassland: Up here we have some
25 grassland, riparian, woodlands areas.

1 A little bit hard to see, but I will
2 point out some of the salient features, some kinds
3 of the development on the sites, and how we are
4 going to develop cleanup levels. This area here
5 is the Crissy Field wetland area. That was
6 discussed before. This really has been addressed
7 already, but this is the salt water marsh area.

8 We have the fresh water riparian on
9 here, Tennessee Hollow area, and then we have some
10 areas on site where you will see the light colored
11 here where you see lots of buildings. Well, these
12 are developed areas. These are areas that are not
13 going to apply ecological cleanup holes too.

14 These are where we don't expect to
15 use the height by ecological receptive. Human
16 activity and pavement, that kind of thing we don't
17 use. These are here, which are the green color
18 like Presidio Hill, like the coastal bluffs.

19 Our areas where we have significant
20 water, we have some sensitive species. So we're
21 going to apply ecological cleanup roles to these
22 areas. Some sensitive species or site, there are
23 a number of sensitive plans, species that you see
24 listed here.

25 So we need to make sure that any

cleanup holes that we develop for sites where there are sensitive species that we be protective of those species. Birds -- we have a number of shorebirds that use the coastal bluffs and some of the wet areas and as well as raptors, hogs, and such that in the forest and in other areas.

So after looking at all this information, we went about. And actually these are the species selected by the Army, but we've reviewed these and find that they're still appropriate. We come up with a list of different terrestrial receptors that we're going to look at. And each one of these receptors was chosen because it's exposed in a different way.

Some are plant eaters; some eat insects; some eat small mammals like red-tail hawk. So we wanted to have a good representation of all the different types of animals that might be at the site as well as plants and insects. Aquatic species, again, I wanted to get a good representation of the kinds of species that might be exposed in the wet areas.

So we have mallard duck, which eats plants; the western sandpiper, which eats insects. We have plants; amphibians; invertebrates. These

1 are aquatic insects and fish. And next step, once
2 we picked our receptors, is to decide how to
3 evaluate that they're going to be exposed. You
4 might be exposed other chemicals.

5 And so we look at the exposure
6 pathways. And this shows that bird bath pay for
7 soil and sediment. So soiled and sediment can be
8 adjusted by animals. As they group themselves or
9 forge for food, they will pick upset soil and
10 sediment and adjustment dermal contact when their
11 skin comes in contact with soil or sediment.

12 They can be exposed that way and
13 then the other way. That is very significant for
14 ecological receptors, and that's by the food
15 items. They're prior also exposed to site media.
16 So they can take up chemicals into their tissues,
17 and then the animals eat these food items. And
18 they're exposed to chemicals that way.

19 You'll see an asterisk for the
20 inhalation pathway. It is possible for animals to
21 be exposed through the inhalation pathway although
22 a lot of work has been done to evaluate whether
23 inhalation is significant for ecological
24 receptors. And in most cases including the kind
25 of exposure to regimes we have here at the

1 Presidio, it's not considered significant.

2 It's been determined recently by an
3 E.P.A. Superfund work group. So we're not
4 evaluated on that pathway. So how do we update
5 this from the Army? Assumptions, as I already
6 told you, are using the same species that they use
7 previously.

8 But the assumption that they used
9 for how these species exposed to immediate
10 contract -- we looked at those and against a newer
11 database ecological exposure parameters developed
12 by Cal E.P.A. When we compared the numbers of
13 that database to what's used by Army, I did not
14 see a big difference.

15 So we did not make a change there.
16 Some of the ingestion rates that were used we
17 modify for the mouse, the robin, and the hawk.
18 This is how much food they ingest per day. Some
19 of those were not adjusted to a dry weight basis,
20 which is now the standard for that kind
21 evaluation. So we adjusted those.

22 And I ensured that all the pathways
23 were addressed for some of the receptors. We
24 didn't really adjust the food. So we changed that
25 to -- those were included in evaluation. Toxicity

1 Benchmark Values what that is -- when I discuss a
2 little bit earlier, this is part of the
3 assessment. We look at how chemicals affect the
4 different organisms.

5 And what the Army did -- and we're
6 sticking with the same approach -- was that they
7 developed two levels of T.B.V. low and T.B.V.
8 high. And here it comes the acronyms that Chris
9 was talking about.

10 One of the differences is that, with
11 human health and ecological risk assessments,
12 human health has very, very well reviewed
13 established toxicity values that are used
14 references as Michelle has talked about before.
15 That's not the case with the ecological risk.

16 Basically every time you go out
17 after the ecological risk assessment, you have to
18 go in the literature and pull numbers out and make
19 decisions about what you think in an adverse
20 effect on the organisms. And there's a lot of --
21 for some chemicals, there's a lot of data; for
22 some chemicals, there's very little.

23 So what the Army did was to go
24 through this literature and make out a level that
25 they felt was associated with new possible adverse

1 effects to the organism. They call this the
2 T.B.V. low. And then they have -- they had a --
3 picked out another level that allowed some adverse
4 effects or could result in some adverse effects.

5 And that was the T.B.V. high that
6 was kind of upper bound level on where you would
7 see an adverse effect. So we reviewed these.
8 We're taking the same approach with the T.B.V. low
9 and high, but then I corrected some calculations.

10 We updated literature search. We
11 did not really find a lot of new literature in the
12 numbers. Only a few numbers changed from the
13 updated literature search. Then we also revised
14 values based on mortality or death. This is not
15 an end point that we want to focus on. We don't
16 want to clean up to where the animals are.

17 We want them to dry, and they
18 produce. So we revised some of these levels, and
19 also we added some chemicals that weren't in the
20 original evaluation. Okay. So now we need to
21 take all this information that we gathered, and we
22 use this to calculate our cleanup level or our
23 preliminary remediation quote.

24 And we set the target hazard
25 quotient and the hazard quotient and the ratio of

1 the dose or how much the animals is exposed to the
2 T.B.V. or what the effect can be. So we wanted to
3 set the hazard quotient at one.

4 So where that would be the dose at
5 which you'd expect no effect, the dose in this
6 case is the sum of the dose from the different
7 pathways. It talked about ingestion soil
8 sediment, ingestion of food, or dermal and skin
9 contact. To target the P.R.G., we just rearranged
10 this equation. So it's the target H.Q. of one
11 multiplied by the T.B.V. and divide by the dose.

12 And remember we have a T.B.V. high
13 and a T.B.V. low. So we're going to come up with
14 two sets of these preliminary lows -- one P.R.G.
15 low and a T.B.V. high based on T.B.V. high. Well,
16 you take all these numbers down. We have a whole
17 range of numbers and come up with our final soil
18 cleanup levels.

19 This is the same approach taken by
20 the Army, and we're taking with this approach.

21 We took an average between the
22 lowest P.R.G. lows number. We had also a
23 different species that we had P.R.G.'s for -- the
24 lowest P.R.G. low and the lowest P.R.G. high, and
25 we took the average of those two values. And

1 that's the proposed P.R.G. for nonmetals. This
2 proposed P.R.G. is our cleanup level.

3 For metals, we compare this proposed
4 P.R.G. similar to the human assessment to the
5 background level. And the background level is
6 greater than on our P.R.G. Then that's the
7 background level we come from cleanup level
8 because we can't clean up below naturally hurting
9 background, and the background level is less than
10 our proposed P.R.G.

11 Then our P.R.G. becomes the low
12 level, okay. I'm going to give you some examples
13 now. I want to qualify these and say these are
14 just examples because they are -- we have not met
15 with the agencies yet to go over the approach and
16 to get, you know, a final approval for it. So
17 these are examples of what we are at now in the
18 levels.

19 So I've picked a selection of
20 different chemicals, showed you the Army original
21 proposed and cleanup levels in the Army's
22 feasibility study, the numbers that we've come up
23 with at this point.

24 And then we also came up with a set
25 of numbers protective of special-status species so

1 where we wanted an additional level of protection
2 or additional level of conservatism for these
3 special-status species. So some of these between
4 the Army and the Trust proposed aren't
5 indifferent. Arsenic and lead is the same.
6 Mercury, based on some of the new data that we
7 gathered, went up a bit.

8 Nickel was about the same range.
9 This was largely driven by background for the
10 nickel. P.A.H. is the same, and D.D.T. went up
11 slightly by about two field, but our special
12 status once were pretty much all lower than the
13 Army levels.

14 For sediments we saw similar
15 situation where now these levels were -- I think
16 these were all a little bit different, but some of
17 them are pretty close.

18 Like 6 was not a big change. This
19 lead went down to 47 to 35. Mercury went up from
20 15 to .18. Nickel went just slightly up to 19
21 where Benzopyrene went down slightly. D.D.T. went
22 down slightly. We had some differences in the
23 final numbers. We didn't see huge differences
24 here.

25 That is basically where we are at

1 with the cleanup levels.

2 Any questions?

3 MR. BERMAN: I have a couple of
4 questions. One is the question of principle.
5 What do you do if an ecological P.R.G. ends up
6 being lower for some chemical or core metal than
7 the human assessment?

8 MS. DeSHIELDS: If that's at a site
9 that we'll show you on that map before where
10 ecological cleanup holes are relevant, then that
11 would be the cleanup hole for the site.

12 MR. BERMAN: So that actually and in
13 that case the ecological P.R.G. would be the --
14 would be the predominant condition?

15 MS. DeSHIELDS: Right. Right.

16 MR. BERMAN: Okay. I noticed on
17 your list also that you didn't have anything on
18 chromium.

19 MS. DeSHIELDS: Well, we're doing
20 all those chemicals. I just gave you just a short
21 example. But yes. We are doing chromium.

22 MR. BERMAN: I pick -- is there a
23 special inceptor, as far as for chromium, that
24 makes it -- that makes the hexavalent chromium --
25 that makes it more of a toxin for ecological

1 purposes and it doesn't hit the human --

2 MS. DeSHIELDS: I have not seen the
3 human numbers. So I'm not sure where our
4 ecological numbers are matching up with the human
5 numbers. If you are asking us, chromium is more
6 toxic than three, chrome three. That answer would
7 be yes.

8 CHRIS NELSON: Six is in the ground
9 work, Pat. Do you have any of the maps available
10 that would show in your presentation also? Do you
11 have copies of this available for the other people
12 that were here?

13 MS. SHLEZ: That would be me.

14 We don't know how many members of
15 the public would be coming and staying. Of
16 course, if anyone is interested, we gave out
17 copies of this presentation to the RAB members
18 around the table. But if you are interested,
19 please give me a call, and I will be happy to give
20 you a copy.

21 MR. KERN: And I think you have a
22 question about the map.

23 MS. RYAN: Correct if it was
24 available -- the map.

25 VOICE: I can answer that. I'm

1 Michelle. Actually it's on the poster board.
2 It's sitting in my car. I realized that in the
3 middle of the presentation. So if people actually
4 want to see it, while you are asking it, I can
5 come out and get it.

6 MS. RYAN: No. I was just wondering
7 if there was a copy available at these sites, or
8 do you have a web site where any of this can be
9 downloaded?

10 VOICE: No. It's not on web site.

11 MS. CHEEVER: Actually as far as the
12 map goes, though, was that just to explain the
13 different types of areas? It's not just to
14 establish different standards in different areas.
15 Are you --

16 VOICE: What's going to happen is
17 the map shows really where ecological goals apply
18 and where they don't apply. And then what would
19 be doing is identifying the sites where
20 special-status species numbers would be applied.
21 So right now it does not show on the map. If
22 that's where you're going, Julie.

23 MR. KERN: Other questions, Julie?

24 MS. CHEEVER: Well, I guess actually
25 I'd --

1 MS. SHLEZ: Could you put some of
2 the proposed cleanup back and maybe put both of
3 them together?

4 MS. SHLEZ: Yes.

5 MS. CHEEVER: What I was tempted to
6 ask why some of the levels come out so different.
7 And, in fact, some of them seem to be higher,
8 meaning allowing more contamination than the Army
9 did. I suppose the answer is just the formula
10 that you went through about in particular. Why is
11 that with D.D.T.?

12 I'm just curious: Why did it not
13 come out with D.D.T. that the proposed cleanup
14 level for the Trust was higher than the Army's for
15 soil but lower than the Army's for sediment?

16 MS. DeSHIELDS: Can I answer that?

17 MS. CHEEVER: Is there an
18 explanation for the way that it came out that way?

19 MS. DeSHIELDS: The raptors, the
20 aquatic receptors -- there's a different set of
21 receptors for soil versus sediment. So there's a
22 different set of assumption that was used and a
23 different set of assumption that was modified
24 based on the information.

25 MS. CHEEVER: I see. Okay.

1 MS. WRIGHT: I will just like to add
2 to this. I'm sorry if I didn't understand some of
3 the complexity that you presented. It was
4 presented very nicely. But I don't know if I
5 really got it. And I'll like to just ask a more
6 simple terms. It seems to me that these are less
7 strict standards than the Army had proposed.

8 And I'm wondering if you can really
9 kind of keep it simple for us. Is that true?
10 First of all, I mean, it looks to me like it only
11 got more strict in three cases and, several, it
12 stayed the same or that less strict. So why would
13 that be?

14 MS. DeSHIELDS: A lot of the changes
15 that we saw here, where they went up, was this dry
16 weight conversion I told you about. They had used
17 weight ingestion rates whereas that's not the
18 appropriate thing to use because all of the rest
19 of the equations are based on dry weight.

20 And so they actually overestimated
21 the risk by doing that. That overestimated how
22 much soil was being ingested by the organisms by
23 doing that. The species that pretty much drives
24 the soil levels is the American robin.

25 There was only three species that

1 they didn't use dry weight values for that. They
2 use weight that we had to adjust. And one of them
3 was American robin. And so that almost doubles or
4 almost halves the soil ingestion rate, which
5 results in almost doubling or, in some cases,
6 actually doubling the cleanup level.

7 But so that was basically an error
8 on their part originally.

9 MS. WRIGHT: I just think it's
10 serious that their level for American mercury is
11 now basically your level for special status. And
12 it's so -- but you're saying that they did not --
13 is it wrong that the simplest way to look at it so
14 these are really truly safe? They're just not
15 being more lenient.

16 MS. DeSHIELDS: These are still
17 being very conservative protective numbers.

18 CHRIS NELSON: I have to say that
19 I'm quite surprised that I don't know that I'll
20 understand it. So I'll pass it on to someone
21 else.

22 MR. KERN: Sam?

23 MR. BERMAN: I don't know if it's
24 appropriate for you to get into this, but maybe
25 you could just give an example of a health

1 condition for a particular species that is the
2 decision maker for the level of chemical toxicity.
3 I mean, you said it wasn't going to be death.

4 And you did not say what level of
5 morbidity or for what was the marker or setup for
6 markers that are actually behind all these
7 numbers. George?

8 MS. DeSHIELDS: Yeah, there are
9 because, like I said, the literature information
10 for wildlife species is less robust than what's
11 used for human health. There's not one set end
12 point.

13 So what happens that you do a
14 literature search in all this pulling information,
15 and you review it. What the Army tried to focus
16 on, in consultation with the agencies, was things
17 like reproductive effects. So, for example, for
18 D.D.T., they were looking at eggshell thinning.
19 It's a very classic D.D.T. response or a sensitive
20 response so -- depending on chemical and how that
21 chemical acts on the species.

22 But they were looking for something
23 more sensitive, something along the lines of a
24 developmental or reproductive type of end point or
25 effect.

1 MR. BERMAN: But had she said that,
2 they're a diverse mechanisms involved here as that
3 as hazards. So I could, it seems to me -- I mean,
4 again, this may be too difficult to get into
5 unless you have some way of prioritizing or saying
6 it is thinning of the eggshell, more important
7 than extra webbing and the feet.

8 Or, you know, I mean, I'm not a
9 specialist in exterior; but it seems to me that
10 when you get down to these numbers, it could be
11 very arbitrary asset if what you conclude as a
12 hazard.

13 MS. DeSHIELDS: Yeah. There is some
14 professional judgment that goes into this. I can
15 tell you: I was at all those meetings. We went
16 through each and every chemical and went through
17 the whole set of literature that they gathered and
18 talked about every single chemical with the
19 agencies.

20 So there was a lot of discussion.
21 It wasn't just one person saying, "This is what I
22 think it should be." It was an agency's and the
23 Army's, and the Park Service were involved. And
24 Doug was at some of these meetings where we really
25 did sit down and look at all the data and decide

1 on which was -- which was most appropriate.

2 MR. BERMAN: So for each of the --
3 it's not necessarily a uniform of the velocity
4 through all the species. But each one you do the
5 best you can by the consensus evaluation.

6 MS. DeSHIELDS: This was under a
7 different setup. Obviously mortality was low on
8 the list, but for some species, they didn't have
9 any other data but mortality data. So that's what
10 they ended up using. But there wasn't a kind of a
11 framework, but it was really chemical by chemical.
12 You had to make a decision.

13 MR. BERMAN: For example, what is
14 the health hazard of mercury if I'm presuming this
15 is in the bird families? That sets that in
16 some -- you know what it is? I mean --

17 MS. DeSHIELDS: I'd have to look
18 back what it was that was chosen. I think it was
19 a task at that point for mercury.

20 MR. BERMAN: Had it affected growth
21 in some way?

22 MS. DeSHIELDS: Affected growth. So
23 that might have meant -- I don't know what exactly
24 the measure -- a lot of times they'll measure
25 growth and see how well they grow and developed,

1 that kind of thing.

2 MR. KERN: Ma'am, and then --

3 VOICE: Walt Hanna. Now, very
4 impressive statistics. What are you going to do
5 with them, and what happens to them?

6 MS. DeSHIELDS: With these cleanup
7 levels? Michelle can probably talk a little bit
8 about what we're doing with feasibility study.

9 CHRIS NELSON: Can I address that?
10 We presented with those maps that people were
11 inquiring about. Was that based on some prior
12 planning that had been done by the Park Service?
13 The land use at the Presidio was essentially
14 mapped out. For instance, this area is known to
15 be used by certain types of animals. This area is
16 heavily used by recreational users.

17 This is a residential area, et
18 cetera. So when we apply these cleanup numbers,
19 they're focused on being used to either cover or
20 remove soil that may contain contamination above
21 those levels.

22 So we would be protective of the
23 receptors by either protecting the receptors of
24 them by covering them up and/or take them away.
25 And that would be the action point, in which if it

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1 was below that, say, 5.7 for mercury or whatever
2 it is, then it would be safe. Does that answer
3 your question?

4 VOICE: Sort of.

5 CHRIS NELSON: Oh, in terms of the
6 next step, this is part of the feasibility study
7 process. And unfortunately for a lot of them, new
8 members of the public that are here tonight we've
9 been chronicling of the feasibility study process
10 that the Trust is going through to revise that
11 feasibility study that the Army had done.

12 And this is one thing that we laid
13 out in the work plan we felt was necessary to do
14 in order to appropriately address such issues as
15 this is a national park. The Army did not
16 consider that national park setting. And their
17 ecological board human health risk assessments --
18 they weren't looking for a residential scenario,
19 whereas we here as we have probably 500
20 residential units here?

21 So we're trying to update and bring
22 into a more appropriate setting with the national
23 park setting how this feasibility study is going
24 to be applied.

25 So once we meet with the regulators

1 about this ecological cleanup level development
2 approach and get their feedback, we can go back,
3 and we'll put together essentially a stand-alone
4 appendix that almost will be utilized across the
5 board at the park for cleanup members.

6 So whenever we do a mediation, we
7 know what are the numbers that are protective of
8 the other receptors.

9 MR. KERN: Let me go to Matt, and
10 then here and then to Julie, please.

11 MR. FOTTLER: I was just curious as
12 to what more dry weight measurements were used for
13 the sediment. I know soil going from wet to dry.
14 But what sediment?

15 MS. DeSHIELDS: Where were the --

16 MR. FOTTLER: The ecological cleanup
17 levels for both sediment and soils.

18 MS. DeSHIELDS: The weight and the
19 dry weight. I believe mallard duck was also one
20 of the ones that I had adjusted for dry weight.

21 MR. FOTTLER: For both assessments?

22 MS. DeSHIELDS: Yeah. But the
23 difference there is that the balance act doesn't
24 really drive the final numbers for the sediments
25 that we did the adjustments. The ones that are

21 Migratory birds are considered
22 special status. Raptors are considered special
23 status different shorebirds that induce the areas.
24 So these are the species that you're talking
25 about; and we did, like, send and consult with

1 Fish and Game. Fish and Wildlife were involved
2 with these meetings.

3 VOICE: Would the final cleanup
4 levels be subject to their approval?

5 MS. DeSHIELDS: Actually --

6 CHRIS NELSON: It's not a plan at
7 this point for their input at this level.

8 So there will be an opportunity,
9 however, for the additional regulatory agencies
10 that are lead status to comment on the ARAR's with
11 the acronym that I was stumbling over earlier. So
12 there may be an identification of additional
13 requirements that we need to fulfill based on
14 their service.

15 MR. KERN: Julie and then this --

16 MS. CHEEVER: Well, just in context,
17 before I -- and my question I'll say that, as the
18 RAB, we seen this concept over the years both from
19 the Army and the Trust. And I think in general we
20 appreciate very much the Trust is filling in a lot
21 of gaps and also trying to give to us generalists
22 on the RAB a good explanation, which is very much
23 appreciated.

24 So my question is I'm still confused
25 about the map if you could go back to it. And

1 even as a preliminary question in these final
2 charts, you list about six chemicals. But I
3 gather those are just examples. You have a much
4 larger list that we'll see at some point.

5 MS. DeSHIELDS: Yes. Yes.

6 MS. CHEEVER: But even this list, it
7 lists one proposed P.R.G., which is preliminary
8 remediation goal. So of one set of standards.

9 But in the map -- if you go back to
10 the map, please, Ina. Thank you -- you have
11 different colors. So are you applying different
12 standards, different places; or are you applying
13 this one set of standards only in selective
14 standards?

15 And I actually appreciate if you
16 could take the laser pointer, someone maybe Chris,
17 and show us which of the areas where this one set
18 of standards you are proposing or are going to
19 apply. Is that possible? I mean, just in general
20 like --

21 MS. DeSHIELDS: We talked about
22 Crissy Field. Crissy Field was already evaluated;
23 right? It's already been, you know, been
24 evaluated Crissy Field. So it had one set of
25 standards that were based on Army numbers. Other

1 numbers are going to depend on what kind of
2 habitat species are present.

3 So where we have sediment goals will
4 apply; where we don't have sediment soil goals
5 will apply; where we have sensitive species, those
6 goals will apply.

7 MS. CHEEVER: I see. And those
8 don't even happen to be on this summary?

9 MS. DeSHIELDS: Michelle said are
10 not yet on the map.

11 MS. CHEEVER: Just as I understand
12 that.

13 MS. DeSHIELDS: Those will be
14 identified.

15 MS. CHEEVER: Then in places where
16 there's a lot of human residential use, you aren't
17 really considering -- the ecological risk won't
18 apply because those aren't really nature areas.
19 Am I understanding that right?

20 MS. DeSHIELDS: If it's paved over,
21 then the plans to be paved over in the future,
22 then there's not a wave for ecological receptors
23 to be exposed in any significant way where the
24 areas where a lot of human activity, residential
25 areas.

1 MR. KERN: Yes, sir.

2 VOICE: Jerry Anderson.

3 I was wondering how you deal with
4 situations where you have to dig up endangered
5 plants or endangered animal habitat to get at
6 toxins that they're at risk to.

7 CHRIS NELSON: I think I can address
8 that. We have a very careful process that we
9 cooperate with the Park Service in here -- the
10 Trust.

11 And I can assure you that any
12 activity that may threaten any potentially
13 endanger or threaten or special-status species
14 goes to what's called project review. And there's
15 a number of things that are looked in that
16 process.

17 We get excavation permits to make
18 sure we're not disturbing any plants or animals or
19 archaeological resources. We also address certain
20 issues related to historic compliance with
21 architecturally significant buildings, historic
22 buildings.

23 And then also, for instance, I will
24 give you an example of something that's happening
25 in the near future because we're going to be doing

1 some additional data gathering at some of these
2 sites. For instance, along the Coastal Bluff Fill
3 Site 52, there's a habitat for the raven's
4 manzanita, which is a very rare plant. We're
5 going to be walking these sites before I do -- the
6 sampling sessions will be done.

7 And there will be a natural resorts
8 steward with us to identify areas of concern to
9 avoid. And then there will be people like myself
10 or a consultant in the field who's aware of that
11 issue. And we'll make sure that, when either the
12 investigation or mediation activists are going on,
13 that those species are protected.

14 MR. KERN: Any other questions on
15 any other point on this talk?

16 Thank you, Bridgette.

17 Moving on Item 5. Any new business?
18 Any items that any RAB member or community member
19 or public member would have to bring to your
20 attention?

21 Action items. It would appear that
22 we will be providing some comments, as we can, to
23 the Trust on the such things as the hexavalent
24 chromium issue, the human health risk numbers,
25 ecological risk assessment. Those things are

1 moving now. And we'll try to set up more
2 discussion of those, the details of what people
3 want at those meetings.

4 So these are some of the action
5 items that are before us. And we also have a few
6 other small, well, not necessarily small in scope.
7 But there are plans that need review in a comment
8 that they're trying to get to as well.

9 We'll bring those to your attention
10 at the committee meetings. I think one of the
11 outstanding item is the contingency action plan
12 meeting to perhaps provide some comments. Any
13 other action items by any members on that? Okay.
14 If folks have any agenda items for the committee
15 meeting or the index RAB meeting, please get those
16 to Marlene.

17 Are there any other public comments
18 at this point? Any other comments by anyone?

19 VOICE: Just two questions, please.

20 MR. KERN: Yes.

21 VOICE: Has offshore testing been
22 done? Are you along on that program? Where is
23 that? And then the other question is what is the
24 factor of the nonfactor radioactive hazard on the
25 compound?

1 MS. REACKHOF: Okay. I'll try to
2 address it for you. The issue, as far as any
3 offshore contamination that has potentially been a
4 result of some activities by the Presidio
5 military, is being addressed through the D.T.S.C.
6 in conjunction with the Army.

7 It was when there was a transfer of
8 lead agency status from the Army to the Presidio
9 Trust last May. One of the components that was
10 not transferred to the Trust was the issue of
11 offshore contamination.

12 And so that still rests with the
13 Army. And I believe that D.T.S.C. is working to
14 get some sort of compensation or working with them
15 to identify how we want to proceed to address any
16 offshore contamination. The other issue?

17 VOICE: It's not finished yet at
18 all?

19 MS. REACKHOF: Pardon me?

20 VOICE: It's not finished?

21 MS. REACKHOF: The Trust has been
22 working with the Park Service to deal with any
23 onshore contamination or low tide or remediation
24 of low tides to attend to any contamination that
25 has been left in certain areas. But as far as any

1 for offshore, there has not been any several
2 activities.

3 And those -- any activities that
4 would have to be done, as far as sampling, will
5 remain with the Army.

6 Henry, did you want to talk about
7 that at all or --

8 MR. CHUI: Yeah. We're hopefully
9 going to send out a letter to the Army and start
10 the negotiation in terms of when and how they are
11 going to sample and test and the admission out
12 there.

13 VOICE: How far out would you go?
14 Do you have any idea?

15 MR. CHUI: I don't know yet. So
16 we're just hopefully going to start negotiating
17 sometime this summer.

18 VOICE: So it's not finished?

19 MR. CHUI: No.

20 CHRIS NELSON: It's not done.

21 VOICE: How about radioactive waste?

22 MS. REACKHOF: At this point there
23 hasn't been any areas that we know of that have
24 any radioactive waste that have been identified,
25 any landfills.

1 If any radioactive material is
2 identified during mediation activities at the
3 Presidio, the Army will and still does retain
4 responsibility to remediate any radioactive leaks
5 stuff.

6 VOICE: That's good. But no ongoing
7 search for that?

8 MS. REACKHOF: Not at this point.
9 But they will -- it will be assessed as part of
10 the mediation of the landfills.

11 VOICE: So the Army is in charge of
12 any radioactive cleanup?

13 MS. REACKHOF: Yes, according to the
14 premium agreement that we have in the Army. They
15 retain the responsibility for radiological
16 biological unexploded ordinance offshore
17 contamination.

18 CHRIS NELSON: And unknown
19 contamination?

20 MS. REACKHOF: Right. And all
21 unknown contamination.

22 VOICE: But you are talking to how
23 it's going to be renovated? I was thinking there
24 was some idea of who is going to find out what
25 needs to be renovated. Will the Army also --

1 MS. REACKHOF: If any of these items
2 are identified during mediation activities, the
3 Army will come in and address the situation. All
4 meetings will stop.

5 MR. KERN: There have been
6 periodically unexploded ordinance that is found
7 here. It's very small amounts like one old shell
8 from a long time ago. But the Army calls in their
9 bomb squad. They come and evaluate it, and
10 they've been very responsive to those kinds of
11 things. And it's anticipated that they would be
12 very responsive to the house hazards that Sharron
13 had mentioned biological radiological ordinance.

14 Did I get to your question?

15 VOICE: I'm still talking about
16 radiology, and I'm talking about finding it.

17 MR. KERN: I think Sharron mentioned
18 that it would be assessed during the remediation
19 of known sites. Now, perhaps what you are getting
20 at is has there been, like, a survey of the entire
21 Presidio for and there hasn't?

22 VOICE: Something like that there,
23 see, of an example a little while ago. And
24 suddenly something blew up in their face. They
25 didn't expect it. Was there? It wasn't a known

1 area. All of a sudden, it's very well known.

2 MR. KERN: Right. Right.

3 VOICE: So it seems to me that there
4 has to be a search of some kind.

5 MR. KERN: Well, there was --

6 VOICE: Just show up.

7 MR. KERN: There is a process in
8 that sort of the human beings on the ground here,
9 you know, I would say, are doing their best to
10 have identified sites from previous records and
11 things.

12 And I guess there remains a list of
13 some -- over a hundred sites that remain to be
14 fully investigated that have been turned up
15 through record searches. And they've -- so
16 there's a lot of things to be kind of finalized.
17 We're talking about within this program, the main
18 installation sites, there are very well recognized
19 landfills.

20 But I think your question is getting
21 perhaps at the larger Presidio perhaps. Unknown.

22 VOICE: What protection of whatever
23 is there.

24 MR. KERN: Right. Other questions?

25 MS. CHEEVER: Well, I have another

1 question about the proposed cleanup levels. I
2 guess we're still at the early stage of learning
3 about it.

4 But I will just like to ask
5 procedurally: Are we going to see the list of all
6 the chemicals? And at some point before the
7 very -- before the finalization of the feasibility
8 study before that last chance we have to comment,
9 will we have a chance to see and perhaps discuss
10 it in more detail at some point before the very
11 end?

12 CHRIS NELSON: Yeah. Much like what
13 we are planning on doing with the human health
14 cleanup numbers after we got preliminary comments.

15 And hopefully by end from the
16 agencies on that approach we're going to be
17 publishing, these will especially -- many reports,
18 our stand-alone appendices to the feasibility
19 study. So in advance of how these cleanup numbers
20 are used in the feasibility study, you'll have an
21 opportunity to look at them and really get the
22 nitty-gritty:

23 How did they come up with this
24 information? What was the improvement of what did
25 the Army do? What did the Army do wrong? And

1 what was the standard about what was done and some
2 of the assumption that we are making in these
3 processes?

4 So we've been asked by the State
5 just today, you know, "Please make it clear in
6 your report what are the assumptions you are using
7 to show you are being protected if you help the
8 environment."

9 So that kind of information which
10 would be, you know, much greater detail in what
11 was presented here today -- tonight -- will be in
12 our reports. And it will go through the same
13 review cycle ahead of the feasibility studies so
14 that we have the opportunity to take a look.

15 MS. CHEEVER: Good. Thank you.

16 MS. WRIGHT: I know that we wrapped
17 up the agenda. Maybe we could add that as a
18 discussion item at the committee meeting. I don't
19 know if there's anyone that will be there. I'm
20 not sure that we've had a chance to kind of absorb
21 what was planted today.

22 CHRIS NELSON: I think we presented
23 the human health members at the last RAB meeting.
24 And I'm just trying to sort of tie it in. Is that
25 not what we did at the last RAB meeting? Did we

1 not present a table to the public or no?

2 MR. BERMAN: Two last week.

3 VOICE: We just did a summary of the
4 compounds. And today when we met with the
5 agencies, we gave them a full list. And so
6 actually for human health, Mark and Doug actually
7 have the full list of where we are today. The
8 numbers -- maybe it a tweaked a little based on
9 some of the agency comments and discussion. But
10 so Mark and Doug.

11 CHRIS NELSON: That's what we
12 envisioned.

13 MR. YOUNGKIN: Up levels as well?

14 VOICE: Yeah. We'll get a list and
15 goal set.

16 CHRIS NELSON: Yeah. You'll get an
17 opportunity to take a look at them, and I have to
18 look back and see whether or not that's one of the
19 meetings that we had talked about in the work plan
20 for a committee meeting. But certainly it is
21 possible to have an additional committee meeting
22 or group, working group meeting, for me to talk
23 about these things.

24 And I think -- based on some of the
25 questions that have come out tonight, I think it

1 seems to warrant that. But that's really
2 something for you folks to make if you want to
3 have a separate meeting.

4 MS. WRIGHT: Okay. Great. Thanks.

5 MR. KERN: Anything else this
6 evening? Very good. Thanks again to many of you
7 for coming out and seeing what this process is
8 about. We appreciate your participation.

9 Meeting adjourned.

10 (Whereupon, the proceedings
11 adjourned at 9:38 P.M.)
12
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25

RAB Members

Please Sign In

June 13, 2000

Sam Berman	Sam Berman
Saul Bloom	
Edward Callanan, Jr.	Edw. Callanan Jr.
Julia Cheever	Julia Cheever
Henry Chui	Henry Chui
Linda Dorn	Present but didn't sign in
Matthew Fottler	Matthew Fottler
Julian Hultgren	Julian Hultgren
Kathryn Hyde	Kathryn Hyde
Doug Kern	Doug Kern
Andrew Lolli	Present but didn't sign in
Bruce McKleroy	
Scott Miller	Scott Miller
Jan Monaghan	Jan Monaghan
Peter O'Hara	Peter O'Hara
James Ponton	Present but didn't sign in
Sharron Reackhof	Sharron Reackhof
Ellie Roman	
Patricia Ryan	Present but didn't sign in
Brian Ullensvang	

Joanne Chow Winship	
Michael Work	
Tracy Wright	<i>Tracy Wright</i>
Mark Youngkin	<i>Mark Youngkin</i>

Presidio Restoration Advisory Board Meeting

June 13, 2000

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June 13, 2000

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June 13, 2000

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June 13, 2000

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Dennis Downing	3757 Webster St, #204 SF 94123	Y
Neil Morgan-Batten	6725 California St. SF 94121	

Presidio Restoration Advisory Board Meeting

June 13, 2000

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Presidio Restoration Advisory Board Meeting

June 13, 2000

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Presidio Restoration Advisory Board Meeting

June 13, 2000

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DONNA LOASER 650-347-3242 DLOASER@EARTHLink.NET	241 N. EL CAMINO A-201 SAN MATEO, CA 94401	YES
KUNG-MING CHIU (415) 751-6464 FAX (415) 751-6463	P.O. BOX 210212 SAN FRANCISCO CA 94121-0212	YES
ROBERT EVANS (415) 563-2862	333 BAKER ST #213 S.F. CA. 94117	YES

1 TUESDAY, JULY 11, 2000 - Draft

2 7:07 p.m.

3 ---oOo---

4

MR. KERN: Welcome everyone to the Presidio

5 of San Francisco and the regularly scheduled meeting of the
6 RAB. I'd like to welcome tonight the Presidio Trust and
7 the National Park Service, members of the regulatory
8 community, and of course our community representatives on
9 the board. And also I'd also like to welcome members of
10 the public that are here as prospective new members. We
11 have new candidates for the board. We welcome them to
12 another meeting this evening.

13 I want to make sure everyone had an agenda for
14 tonight. If you don't have one they are in the back. Are
15 there any changes or decisions to tonight's agenda? Okay.
16 I see none. Committee reports.

17

MR. YOUNGKIN: The regular monthly committee

18 meeting was on June 27th of last month and we had a
19 representative from Harding, Lawson and Associates,
20 Bridget Deschutes, who was answering questions on
21 ecological risk procedures. So we got a chance to ask
22 questions and run-through examples with her and get an idea
23 of how the process works. And we had a long discussion
24 about that and we went through some membership issues.
25 And we passed out copies of membership

1

1 applications. Eleven applications have come in and there
2 are seven members who have decided to participate in the
3 selection committee. We are in the process of reviewing

4 these applications and we estimate sometime this month the
5 committee will meet and run through the applications and
6 make a decision on a slate of candidates to recommended to
7 the full board for approval.

8 The next regularly scheduled committee meeting is
9 July 25, 2000, the fourth Tuesday of the month. It is open
10 to all RAB members. We do not have an agenda for this
11 evening. That's it. Thank you.

12

MR. KERN: That was a rather startling

13 comment you made there. I've been reminded to ask
14 everyone, if you haven't already, to sign in tonight at the
15 back. All right. Any other committee reports? I think we
16 our membership thing is going pretty well. We have a lot
17 of applications in. We are on to item 4. We have a update
18 with Chris.

19

MR. NELSON: Project status update -- you'll

20 have to excuse me. Our community relations specialist is
21 on vacation this month and I am filling her role. Anyway,
22 as most of you know I am Chris Nelson. I'm the project
23 manager of the Presidio Trust and I'm here to talk about
24 some of the projects we are working on. I think it's
25 mostly readable.

2

1 As you all know the Feasibility Study, the revised
2 final Feasibility Study for the main installation, is
3 underway. And we've spoken at many past RAB meetings this
4 year about the process we're going through. And I'm going
5 to touch on just a few activities wrapping up what we've
6 talked about in the past and introducing a member from the
7 team who will be talking about the chemical screening

8 process.

9 Bruce Castle will be speaking after this report.

10 We have conducted a transfer of the data from the Army data
11 base to EKI. And we're currently working out the system to
12 get it usable so the EKI can do the screening process.

13 What this will do is help us identify potential chemicals
14 of concern that we need to address in remedy solutions and
15 cleaning up the sites.

16 We've also discussed this ecological and human
17 health issue for the soil and sediment at the Presidio.

18 And at the last meeting Bridget Deschiels of the EKI team
19 was here to present that. And we also had an agency
20 meeting on the 27th to discuss that issue. And it was a
21 well a timed meeting. We followed up that night with a RAB
22 committee meeting on the same topic.

23 We have one last meeting. As you recall there were
24 four major technical meetings we were going to have with
25 the agency and the RAB to discuss Feasibility Study topics;

3

1 being the hexavalent chromium in groundwater; the human
2 health cleanup; the ecologic cleanup numbers. And at the
3 last one which is yet to be scheduled we will be discussing
4 landfill regulations as they apply to our sites and also we
5 will be discussing the ARARs.

6 Also a big push we had the last few weeks on the
7 Feasibility Study is getting out in the field for the field
8 effort. I want to thank everybody who gave comments on
9 that. We received comments from the DTSC, Regional Water
10 Control Board, and the RAB. And we received approval to go
11 ahead and proceed with fieldwork which we initiated
12 yesterday.

13 We are now in the field drilling wells at a couple

14 of sites. Yesterday we completed a couple wells at fill
15 site 6 in the Letterman complex area and we moved on today
16 to Battery Howe Wagner. If anybody has any questions feel
17 free to ask me questions, or give me a call. I will talk
18 about it with you off line. You are also welcome to come
19 and observe when we are doing the drilling and the
20 trenching and what not.

21

MR. BERMAN: Are these wells for both
22 groundwater and soil sampling?

23

MR. NELSON: It varies at each site. At
24 some sites we're putting in monitoring wells to sample the
25 groundwater and other sites. We'll be doing both soil and

4

1 groundwater.

2 Actually, I should also mention I have given a
3 sample of the final copy of the Field Sampling Plan to the
4 RAB committee, co-chair, and facilitator. There will also
5 be a copy in the library. So if you want look at it, it's
6 available. Moving on to the groundwater study.
7 Montgomery and Watson was in the field last month
8 and they took samples at four of our sites. They completed
9 the work and the reports will be ready for release when the
10 data has been analyzed and interpreted. We also have
11 released a report for the December monitoring and we
12 anticipate comments on that.
13 I think there were some concerns from people and we
14 wanted to get those addressed. So we will be releasing
15 page changes for that report. If you have any concerns you
16 can bring them to my attention so we can get it
17 incorporated.

18 Last but not least if you recall we were going
19 through a procurement process back in March and April where
20 we brought on some new consultants to do a variety of tasks
21 for us in the environmental cleanup program. And I
22 mentioned last time we had negotiated with 3 firms and we
23 are now in the process of hiring (what is the name of this
24 firm?) Harding Lawson, Fredual, and Rollo and URS
25 Corporations regarding Lawson and Associates.

5

1 Our first task order is for Commissary removal
2 action work on Mason Street. George is going to be talking
3 about that and he's the project manager on that. So I am
4 sure he can answer any questions you may have. With that
5 if there aren't any questions for me I'm going to turn it
6 over to George.

7

MR. FORD: Okay. The continuing story of
8 the Commissary seeps. There is a lot of the material on
9 the screen and most of it is probably review. Let's go
10 through it anyway. The seeps were discovered in
11 November of 1999. We have been exploring and investigating
12 the area and doing monthly seep monitoring since then.
13 The monthly seep sampling shows that the gasoline
14 concentrations in the groundwater that is seeping out on
15 the marsh bank has been steady at around four tenths of a
16 part per million.
17 In the most recent round it was two tenths of a part
18 per million. Both of those are below the 1.2 part per
19 million action level. At this point we are pleased that
20 the concentration seems to be going down rather than up,
21 but I would -- since it's only one -- we've only had one
22 month where the number declined, I wouldn't make too much

23 of it. We will keep monitoring it for a while.
24 Over the last couple of months we've done 48 soil
25 borings and 8 test pits to investigate where the gasoline

6

1 is and it turns out there's diesel out there. And we have
2 found up to 21,000 part per million and 15,000 part per
3 million diesel in the soil and 4 to 6 foot depth range.
4 This seems to be confined to a layer of sand that we
5 believe was dropped in the Panama Exhibition in 1915.
6 If you compare these numbers to the soil action
7 level you will find they are high. The soil action level
8 for the area surrounding the marsh is 11.6 ppm for
9 gasoline. And you can see there is 21,000 ppm. So we are
10 way above the action level. We have to do something about
11 it.

12 The good news is we believe with all these soil
13 borings and test pits we have confirmed that it is a
14 localized problem. We are not going to be chasing gasoline
15 and diesel out to the bridge. It occurs in a relatively
16 small area. It is about 150 feet long and 80 feet wide and
17 it is located right in the front of the Commissary. What
18 we are focusing on is an interim cleanup. And we call it
19 interim cleanup because we are not doing the whole
20 corrective action for the whole Commissary area. We are
21 trying to stay focused on the acute problem we have where
22 the seepages occur.

23 So, we're calling it an interim cleanup, but we are
24 planning to do it to the cleanup standards that we expect
25 are going to apply in most other areas. So we don't expect

7

1 to come back and do it twice. It will be thorough.

2

MR. BERMAN: Are you now convinced that this

3 is the area that is seeping into the marsh?

4

MR. FORD: Yes. There is really good

5 correspondence between the area where we have gasoline in

6 the seeping water that appears to be directly upgradient of

7 the area where we've identified gasoline in the soil. And

8 the good news is we have borings as we step outward from

9 the contaminants that gets cleaner on both sides and back

10 towards the Commissary. So at this point we are able to

11 draw a line on the ground and say it's in here. We don't

12 think it's flowing in from someplace else.

13

MR. BERMAN: But that's sort of indirect,

14 right? I'm just engaging on this particular point because

15 you isolated an area of very high gasoline and diesel

16 content. And you've also shown there's something seeping

17 into the marsh. And I was just trying to clarify exactly

18 how you make the connection that you found the source of

19 the marsh contamination and not some other source that is

20 sitting there and also needing cleanup.

21

MR. FORD: Well, you probably never have

22 proof until you physically open up the ground and look and

23 see a gasoline sheen coming off contaminated soil, but

24 we're talking about a fairly small area here. And we've

25 explored both the contaminated zones and all around the

8

1 margins of it and I guess I would say there's no room for

2 anything else to sneak in there. The contamination is

3 fairly close to the edge of the marsh. The center mass of
4 it appears to be under the south edge of Mason Street and
5 the planter island that is now there.
6 And if you look at it in the plan it is not very
7 far from the marsh. The seeps are directly across the
8 street on the marsh bank. So I'm not sure that I could
9 ever stamp my foot and say we have proved it without a
10 doubt, but at this point I would say the evidence is pretty
11 conclusive that the gasoline that's bound up in the soil in
12 this zone is leaching out into the groundwater as the
13 groundwater goes by. And where we see the groundwater is
14 where it comes out to the bank and it still has gasoline in
15 it.

16

MR. BERMAN: Are you satisfied that the
17 depth of the wells is sufficient to find the bottom of the
18 source?

19

MR. FORD: Yes, I am. The most recent was
20 at the end of last month. We drilled 14 more soil borings.
21 And one of the things we did in a couple of borings is we
22 took samples of different depths and what we found is that
23 the hottest zone is in about 4 to 5 feet and the
24 concentration seemed to taper off.
25 So by the time you get to 6 feet down it is a

9

1 fraction of 1 foot above it. It is possible in the area of
2 contamination it may extend deeper in some areas, but when
3 we do the cleanup the field operations will be designed so
4 that we can come that so if there are any deeper pockets we
5 will be taking them out and we should find them. But I am
6 convinced that it's a shallow site. Most of the action is

7 between 4 and 6 feet. I don't think we have a deeper
8 problem.

9

MR. BERMAN: And the source now you think is
10 just contaminated soil that was dumped there or was there a
11 spillage that remains soaked up in the soil?

12

MR. FORD: I think it's the latter. Most
13 likely looking at the history of that neighborhood it's
14 very likely that it was caused from spills either from
15 filling accidents when somebody was putting gas in a
16 vehicle or a pipeline leak or something along those same
17 lines is what caused this. I don't think it was dirty soil
18 brought in and dumped. I think the soil was probably
19 reasonably clean when it was placed and then it had
20 something spilled into it.

21

MS. MONAGHAN: I wanted to ask about the
22 cleanup in October. Is it critical we do it before the
23 rainy season starts?

24

MR. FORD: It's not critical, but it's
25 better. I think most people who move dirt for a living

10

1 would prefer to do it before the middle of November. But
2 if it doesn't happen by then it's possible to do it in the
3 winter. It just tends to make us make allowance for rain
4 days.

5 And in a case like this where if it starts raining
6 where you're halfway through the job you may have
7 contaminated soil exposed and you would have to make
8 provisions to cover it and contain the water that gets into

9 the excavation. It is not fatal. That's our thinking
10 right now. We have gotten very clear marching orders that
11 we cannot close Mason Street for the month or so that it
12 would take to do a cleanup like this.
13 So our thinking is now whatever we do it's going to
14 keep Mason Street and the bike path and pedestrian access
15 open. And we also have to maintain full-time access to the
16 loading docks, the main loading documents for the
17 Commissary. So there's some traffic issues, but nothing
18 that we can't handle. That's really the difficult thing
19 about this job is the traffic issues and supporting the
20 utilities that may go across the excavation.
21 The hole we have to dig to get to the contamination
22 is probably no more than 7 feet deep. It is not hard to
23 dig a hole like that. It's just these other things that we
24 have to deal with.

25

MR. LOLLI: Is this clean up necessary?

11

1

MR. FORD: Yes, it is. The idea with the
2 marsh is that not only will we be in compliance with
3 water -- the cleanup level governs the chemistry of the
4 water that goes into the marsh. The cleanup levels for the
5 groundwater also apply to the buffer zone that surrounds the
6 marsh. Right now there is a debate about how big that
7 buffer zone is, but any reasonable interpretation of the
8 buffer zone surrounding the marsh would include this site.
9 And so we know that we have groundwater
10 concentrations within that buffer zone that exceed the
11 limits that are supposed to ally there. So it's a big
12 speech, but the short answer is yes.

13

MR. LOLLI: How about the funding?

14

MR. FORD: The funding this is -- we don't

15 know how much it will cost yet, but I think we can fit it
16 into the overall budget. This won't be the most expensive
17 cleanup.

18

MR. LOLLI: Do you feel we're cleaning up

19 this area that we don't have to right now? Why can't we
20 leave it the way it is?

21

MR. FORD: I do. It's a judgment call as to

22 how clean you want to get it. But what I say is the Trust
23 takes very seriously the fact that a lot of effort has gone
24 into creating the marsh and restoring Chrissy Field. And
25 there may be some places on the Trust we should argue about

12

1 leaving things in place or approaching a cleanup number,
2 but we would agree with most people that this is not that
3 place. It's right on the edge of the marsh and this is a
4 place to do it by the book.

5

MR. LOLLI: Thank you.

6

MR. FORD: Your are welcome.

7 Just quickly going through the rest of the bullet
8 points, the remedy is we are excavating and will remove the
9 contaminated soil. When you do that project probably
10 spending half or two thirds of your money is spent dealing
11 with the street, the parking lot, the planning islands, and
12 utilities. And less than half of your money is actually

13 spent taking out contaminated dirt.
14 So that's something we're focusing on. We'd like
15 to get more bang for our buck, but right now we're still
16 focusing on removing the contaminated soil. We plan to
17 submit a revised draft work plan to you and the regulatory
18 agencies at the end of this month that will describe what
19 we're planning to do. And then we want to hear everyone's
20 comments on that so we can actually come up with the final
21 one.
22 We're having draft plans and specifications
23 prepared. That's what Treadmall and Rollo is working on.
24 We have asked them to shoot for mid August to have plans
25 and specs together. There will be a brief period where we
13

1 will make sure they dove tail so they all say the same
2 thing. And then we would solicit bids from clean up
3 contractors at the end of August.
4 You have to give them two or three weeks to prepare
5 the bids because there is a lot of background research they
6 have to do. So bids will be due in mid September and the
7 plan would be to do the cleanup in October. Now depending
8 on how things go there the time may slip a little bit, but
9 we hope that it won't slip a lot. That is the goal we are
10 setting and we are going to get as close to it as we can.
11

MR. MCKLEROY: Regarding the slide on the
12 seeps, it seems that a couple of the numbers here confuse
13 me and probably it is because one of the numbers is for
14 groundwater and the other is for contaminants in soil. You
15 have 1.2 ppm groundwater as the action level and you've
16 seen .4 ppm at the seep where it emanates. And then you
17 have soil borings where you're finding much larger

18 concentrations in the soil.

19

MR. FORD: Yes.

20

MR. MCKLEROY: My question is I see the

21 difference in that, but are your borings -- do you get any

22 groundwater borings or any well sampling, or is this all

23 soil sampling?

24

MR. FORD: We've been focusing on soil

25 recently. If we could go to the last slide in the series.

14

1 I probably confused you because I didn't tell you about all

2 the things we know. The seeps are the little things that

3 are where the dots with squiggly lines are. That's where

4 the seeps occur on the bank. This is where we've

5 identified the zone of soil contamination. The top row of

6 black dots are the points where we did what's called a

7 hydropunch sample. We did that in January and that's where

8 we actually did take groundwater samples from those borings

9 the -- excuse me, the top two lines are the hydropunch

10 sample.

11 I don't know if you could read it, but that says

12 "3.4." That's a hydropunch location where we pull out a

13 groundwater sample and it came up with 3.4 ppm gasoline.

14 So that's our groundwater occurrence that exceeds the 1.2

15 action level. So for you that's about 30 feet back in the

16 bank. So what it tells you is that the gasoline

17 concentration is attenuating as it moves toward the marsh

18 bank. But that 3.4 is really where we're -- I hate to use

19 words like violation, but that's where we exceed the

20 criteria.

21 And then most of the locations in here in that
22 area, where we have the red blob, those all exceed the soil
23 number.

24

MR. MCKLEROY: Those triangles are all soil
25 boring symbols?

15

1

MR. FORD: Yes. In fact, there's 14 more of
2 them on this side that are not shown. And the 14 that we
3 did show that this red block extends a quarter inch farther
4 to the left. Effectively it is not much different, but
5 what we are able to do is define the western extent of the
6 contamination.

7

MR. MCKLEROY: One other question. Was that
8 you said you found diesel as well as gasoline? I think
9 that's new and are they occurring together, or have you
10 taken samples? Do they compliment each other? Do they
11 increase each other's concentration?

12

MR. FORD: The concentrations are additives.
13 There are some samples that have pretty good concentrations
14 of both. But what it looks like in a nutshell, over on the
15 east looking at it this way, the right-hand side of the
16 contaminated zone, the right-hand side of it, which is the
17 east half, is gasoline. The west half is mostly diesel.
18 And they kind of meet in the middle.
19 So the highest concentrations of hydrocarbons in
20 the soil are in the middle where you have both gasoline and
21 diesel. It looks like the pattern of occurrence is such
22 that if we cleanup to the gasoline number we use them, the

23 gasoline cleanup criteria, for the east half. The diesel
24 cleanup number is -- it's an issue that has to be resolved.
25 We don't -- one of the numbers that's missing in our list

16

1 of cleanup numbers for the marsh is a diesel number.
2 We have a fuel oil number, which applies to heavier
3 oils but one of the things that will have to be talked
4 around, and we will have to come to a conclusion that
5 presumeably everyone can agree with, will be what's the
6 cleanup number for diesel.

7

MR. MCKLEROY: TPH or total hydrocarbons,
8 isn't it?

9

MR. FORD: Total hydrocarbons. That
10 analysis can be. It sort of lays out hydrocarbons of all
11 different lengths. The short ones are gasoline. The
12 medium are diesel and the heavier ones are motor oil. So
13 what we have here are published standards for the heavy
14 oil. But we haven't had one published for diesel. So I
15 don't look at it as a big deal.
16 We'll probably end up with a number that is in
17 between the motor oil and gasoline number. But we have to
18 do thinking and more research to come up with appropriate
19 number. We may conclude that's appropriate to use. The
20 motor oil number, I don't know at this point we haven't
21 looked at it.

22

MR. MCKLEROY: Doesn't gasoline move swifter
23 into the water table?

24

MR. FORD: Yes. And in any kind of cleanup

25 we'll check for everything even when we dig over here even

17

1 though it's almost all diesel. When we think we're
2 finished and think it's clean we are going to test for
3 gasoline and diesel to make sure we got it all. So the
4 hope is if we go in there we're going to try to do a
5 thorough job.

6

MR. BERMAN: In the rainy season or during
7 the rainy season since this is contamination in the soil,
8 would you expect increasing flow of contaminants into the
9 marsh? Have you addressed this before?

10

MR. FORD: Probably not just because the
11 contamination is there and the groundwater is flowing
12 through it, as far as we can tell, pretty rapidly right
13 now. So if we had an open excavation with the top of the
14 contaminated zone exposed a heavy rain fall might increase
15 the velocity a little bit. So that's not something we
16 ignore if we get into that scenario.
17 If we have an open excavation in the middle of the
18 rainy season we will take some sort of measures to deal
19 with water in the hole. That may just be getting storage
20 tanks so if we do have a rainstorm we can push out water
21 with a sheen on it, treat it, and discharge it to the
22 sanitary sewer. But we would address that. It wouldn't be
23 normal practice to just open a hole and let the rain fall
24 in and hope for the best.

25

MR. BERMAN: I wasn't so much concerned with

18

1 that because you already said that. I was just wondering
2 if the seep had not been discovered in the spring and early
3 summer, but if it is discovered in the middle of the winter
4 would the seepage have been higher? And it's not an
5 apparent question, it's an educational question in a sense
6 because it was very lucky you found the seep immediately
7 because it would have been much worse in the winter.

8

MR. FORD: We have been monitoring it over

9 the winter and the concentration didn't change very much.
10 It is one of those complex areas. It is not something that
11 lends itself to reasoning your way through it because if
12 you think about it the groundwater levels tend to be lower
13 in the summer and the fall.
14 In a lot of cases like this where the groundwater
15 fluctuation goes up and down a lot of what can happen in
16 the late fall is the water drops below the zone of
17 contamination. And even though there's less water flowing
18 for a brief period of time, it may actually get cleaner
19 because it is going below the level where it is in contact
20 with the contamination. We are not seeing much fluctuation
21 here. The water goes up and down maybe a foot, and the
22 contamination is in a 2-foot zone.

23 So wherever the groundwater is the contamination is
24 still touching. I wouldn't expect to see a big fluctuation
25 at the scene. And so far we haven't seen a big

19

1 fluctuation. I don't know if that made it more confusing.

2

MR. BERMAN: I don't really know anything

3 about the hydrology that's involved in moving the

4 contaminant into the marsh, but a lay nieve thinking person
5 would say the groundwater is higher and you would get more.
6 Since you don't think it's very deep at 6 feet you would
7 think when the groundwater was lower there would be less.
8 So it was just elementary thinking, but that is not
9 consistent with the data.

10

MR. FORD: I think this situation is one of

11 those things where I think if you try to do the thought
12 process and question it you'll make yourself crazy. The
13 thing to do is analyze the seeps and see what they do.
14 There are other things that enter into it.
15 If the groundwater goes relatively faster at one
16 time of the year or another you can have less contact time.
17 If the water is really coursing through there it takes a
18 certain amount of time for it to pick up the dissolved
19 hydrocarbons. If it is just flying by it may not get very
20 much. There are all kind of variables that exist under the
21 ground that you have to do a pHD thesis on that piece of
22 ground. So I try to stay away from that and just Monitor
23 the seeps, figure out the soil concentration, and figure
24 out how to fix it.

25

MR. BERMAN: Nothing wrong with that. I'm

20

1 just trying to clarify.

2

MR. FORD: We do spend time thinking about

3 it, but I haven't had luck thinking about it.

4

MR. PONTON: I had a few questions. Have

5 you looked to see if the diesel is gasoline, that it's all

6 the same product possibly, or I know you are thinking
7 spills? Has there been degradation?

8

MR. FORD: We have the cromatigrams (what is
9 this term?) and we are thinking all the fields samples we
10 see are old. I haven't addressed that specific issue. It
11 is conceivable that some of the diesel we are seeing could
12 be strong gasoline. We think that the spills in this area
13 probably whenever they occurred there were probably over
14 with by about the time the Commissary building was built in
15 the mid 80's.

16 So we would expect most of the things here to be
17 old. The one thing that isn't consistent with that picture
18 is that we do have traced hints of Benzine and some of the
19 other volatiles in the seeps and also in the Hydropunch
20 samples. So I don't know if we have quite resolved that,
21 but the stuff that's coming out of the soil borings in the
22 parking lot in Mason Street seems to be pretty old.

23

MR. PONTON: Are there any grondwater
24 samples collected where you have gotten soil samples?

25

MR. FORD: No, we haven't pulled both out of

21

1 the same borings. We have some test pit results where we
2 took ground and soil samples. And they seem to be
3 generally consistent with each other.

4

MR. PONTON: And the seeps, you say they are
5 sampled frequently. Is it the same -- do you duplicate?
6 Is it the same point you go to? And do you use the same
7 way of collecting the sample?

8

MR. FORD: We try to sample them once a
9 month using the same protocol and occupy the same stations
10 each time. It's not quite like sampling a monitoring well
11 in that wave action and tides are going up and down and
12 that does change the surface a little bit. But we've
13 recorded where the locations are so we can reoccupy them.
14 And we've been monitoring the same two spots throughout.
15

MR. PONTON: What is the groundwater here?

16

MR. FORD: It varies depending on the
17 season. It is generally 3 to 3 1/2 feet.
18

MR. PONTON: And it's not tidally affected?

19

MR. FORD: The answer is I don't know. It
20 very well may be. It wouldn't surprise me at all just
21 because this layer, the 1912 sand, is reasonably clean. So
22 it's we haven't looked for it specifically, but it wouldn't
23 surprise me especially now since we brought the tidal
24 effects. It used to be 800 or 900 feet away and we built a
25 new marsh and we've got it 60 feet across the way.

22

1

MR. HULTGREN: When you finish the soil
2 removal and the testing then you put soil back in and you
3 finish with the roadways, will you do some after-the-job
4 monitoring to check to make sure that you got what the
5 problem was?

6

MR. FORD: Yes. As part of any cleanup we

7 would put in some monitoring wells. In this drawing we put
8 in at least one upgradient and we would put one in probably
9 right at the edge of where we finished cleaning up. And
10 then we would put one in more downgradient. And then we
11 would -- part of the work plan will specify where we'll put
12 the wells, how long we plan to monitor them, and what we
13 would test for.

14 And so we'll be sending all that around, and if
15 anyone doesn't think we've got the right parameters or
16 thinks we need wells in different places then we can talk
17 about it. But there will be groundwater monitoring to
18 document that the cleanup action is doing some good and it
19 is reaching its goals.

20 Thank you. If you think of anything else I'll be
21 right over here.

22

MR. KERN: Thanks, George.

23

MR. NELSON: As I mentioned earlier we're
24 going to be discussing the chemical screening process as
25 part of the Feasibility Study. And we have here this

23

1 evening from Irwin Co. (what is this company) Bruce Castle,
2 who is now going to present this information to you with my
3 agile assistance at the projector.

4

MR. CASTLE: Okay. This is a bit of a dry
5 section. We will start out with probably more depth than
6 you would like, but here is an overview of the FS process.
7 We are going to identify potential chemicals of concern and
8 what we are looking to do here is create lists of potential
9 chemicals of concern that can be carried down into the

10 steps we show as deriving cleanup levels to protect human
11 health and the environment.

12 After establishing the list, the final list of
13 chemicals of concern for the Presidio -- okay. And one
14 remark I do want to make right from the start here in terms
15 of this screening process is that it's very much a work in
16 progress. This is not a report looking backwards in the
17 rearview mirror. This is something we're getting our hands
18 dirty with as we speak. We're really in the thing of that
19 now.

20 And maybe one other remark being that though we
21 show this as a sort of sequentially, this process followed
22 by this followed by that, in fact there is quite a bit of
23 parallelism here in the attempts to compress a schedule and
24 be efficient. In fact, the cleanup levels are going on as
25 we speak. So there are parallel activities happening.

24

1 It's not everything is on hold until we get through this
2 actual screening process. That is not the case.
3 Chemical screening: This is what we are going to
4 talk about tonight. This is the why and the data base that
5 we are using to do this work. Mostly we'll be talking
6 about the screening guidelines themselves and then just
7 again, sort of emphasizing that the end product of this is
8 this final list of chemicals of concern. That is the final
9 objective we are shooting for.

10 So why chemical screening? In general there are
11 two general answers to that. One is to remove
12 inappropriate chemicals from consideration. We don't need
13 to go to the considerable effort of deriving both human
14 health and ecological screening levels for chemicals that,
15 in fact, are not a concern to us. The whole investigation

16 process has yielded a lot of data and a lot of that data is
17 actually superfluous to what we need to do. And we need to
18 screen that out.

19 And the second answer to that is we need to remove
20 unreliable sample data for a lot of reasons. Not all data
21 is good data and we need to make sure whatever we carry
22 forward into this process of sort of further screening with
23 these levels is reliable data and data we are content with.
24 And ultimately we need to know where we are going is
25 identifying chemicals that of real concern. We don't need
25

1 any false hammers. We need ones that are of real concern.
2 And what we're really trying to do is be efficient about
3 using our resources.
4 So what are we doing this from? The answer is the
5 Presidio chemical data base. We have got this at this
6 moment in time. The last time I looked there was about
7 122,000 records in that data base. And each one of these
8 records has the results of a single analysis for a single
9 chemical out of a single sample. So there's quite a lot of
10 analytical mass in that. And among all those records are
11 information about where the sample was taken, when it was
12 taken, what depth, what matrixes. It is things about the
13 soil lithologies, and the actual results themselves.
14 And the that's the sort of things that's in there.
15 It reflects all the information that's been collected that
16 we know of since 1990. And it's been stored in a
17 relatively simple format, a DPF format, for those of you
18 who play with data bases. It is pretty simple to
19 manipulate and to query and to analyze by a whole variety
20 of PC based database management systems. And that was
21 intentional, I think.

22 It was originally defined by Dayson and Moore and
23 has been subsequently been modified by Montgomery and
24 Watson. We have attempted in this to bring it up to date.

25 So as we do this screening process we are trying to make

26

1 sure that we're bringing together absolutely everything
2 that's applicable the APA data base. The Army's data, all
3 the data that's been collected since the Trust took over,
4 and what decisions we make from this data is made from
5 absolutely all the data we can get our hands on. That is
6 what we wanted. And again it's very much a work in
7 progress.

8 As Chris was indicating there is data gathering as
9 we speak. So this is going to be a living thing that's
10 going to be continually added onto and updated. So
11 guidelines: this is crux of the discussion tonight. What
12 are the guidelines for screening? What is screening?
13 Basically, the simple answer to that is it's a mathematical
14 separation process. And how we start that process is with
15 guidelines that come from EPA risk assessment. And they
16 give us guidelines for eliminating certain classes of data.
17 And as this indicates, the first one on the top of
18 the list is what I call field screening data, in other
19 words, information collected. For example with these
20 little hand-held vapor monitors, that is not appropriate
21 data. It is semi-quantitative at best and it is not
22 appropriate for the kind of rigorous exercise we are going
23 to do. So that sort of data according to guidelines can be
24 eliminated.

25 Probably the most obvious one is chemicals not

27

1 detected in any of the samples from a specific medium.
2 What many people may not be aware of is how this data is
3 collected or how it's generated by analyzing for large
4 suites of very specific chemicals. So a particular method
5 may view the analyses differently. Out of the chemicals
6 only one or two of which are detected yet you have all this
7 information there that's detected. So we want to
8 eliminate all those. That will be actually a big portion
9 of what gets eliminated for us.
10 The third one is common laboratory contaminants.
11 We'll look at this a little bit more detailed later. It's
12 worth comment here in a few minutes, but the EPA recognizes
13 that there are chemicals that are used in the laboratory,
14 commonly used in the laboratory, or different types of
15 extractions, for example, that are also of potential
16 environmental concern.
17 And that routine lab practice results sometimes,
18 even many times, results in these chemicals cross
19 contaminating samples and making a confusing picture about
20 what actually is in your site samples, which is what got
21 added when it got to the lab.
22 So again, we'll say more about that, but we want to
23 make sure we are including common laboratory contaminants.
24 There is a class of compounds, tentatively identified
25 compounds, TICS. These are organic compounds in some of
28

1 the methods that are used they are sort of imperfectly
2 known. The methodology can't say for sure that they are
3 there, but there's some indication of them. And not known
4 terms of identifying them, but also concentration. And so
5 those without definitive reasons, those chemicals are not

6 ones we want to include.
7 They tend to have great long convoluted names
8 because the computer generated methods of identifying some
9 of these. It has to look long and hard into its computer
10 file of chemicals to find the chemical. The computer looks
11 at what should go to that and kind of matches these. And
12 some of the most esoteric things in the world show up many
13 of which, most of which don't have toxilological data. So we
14 don't want to include these in the data base.
15 From a quality control point of view, data
16 evaluation is a process where an expert sits down and goes
17 through the data very, very carefully with data from the
18 laboratory. And he may find data he rejects on the basis
19 of failed quality control. They get some kind of a flag
20 put by them that says R for reject, whatever the condition.
21 Some quality control measure failed and we cannot accept
22 these data.
23 And finally there's a bit of a more controversial
24 more substitutive guideline. It says that chemicals that
25 occur infrequently -- when we say that we mean 5 percent or
29

1 less at a time -- may, I'll underline may, be superfluous.
2 This so called 5 percent rule recognizes that infrequently
3 detected chemicals may be artifacts of something you're
4 doing in sampling, and are not at all related to what
5 actually has happened on site in terms of usage or
6 disposal.
7 It's a guideline that requires some judgment. I
8 think some considerable judgment actually is necessary to
9 implement them, and we're going to return to that subject
10 in a little bit.
11 Contaminants: this in the EPA guidance. These are

12 the 5 common laboratory contaminants recognized in EPA
13 guidance documents. The first four are acetone, MEK,
14 methhylene chloride, toluene, phthalate, esters, some of
15 these compounds. And it's very difficult for laboratories
16 to control for that. So those are quite common lab
17 contaminants.
18 The last one is interesting. It is fal..... In
19 fact, it's all around us so it can interject itself almost
20 any place in the process. These are plasticisers, plastics
21 in plastic pails that you use for gathering samples and
22 that sort of thing. Any kind of plasticware will have it
23 because it's in plastic that is used to make it pliable and
24 flexible. Some have a greasy feel to them.
25 That is one or more that are in the percent levels

30

1 to make them flexible and shiny. And that adds a real
2 problem in terms of contamination because again we can do
3 it in the field, or it can happen in the lab. It can
4 happen almost anyplace. It is a very, very difficult class
5 of compounds to say this is a site contaminant instead of
6 where it may have been added on in the chain of analysis.
7 According to EPA guidance you can screen out these
8 lab contaminants if they met a couple criteria. One is
9 they need to be on that list of 5 and secondly, the most
10 common, what you see in the sample is less than ten times
11 the concentration that's in the blanket analysis.
12 No blank analysis quality control sample method.
13 Blank is in essence a water sample that is free of ions,
14 metal ions, and inorganics, and free of organics. It is
15 completely clean. And it is taken -- it's put with a whole
16 group of samples that go through the lab together. And
17 when the samples are heated or when the samples are stored,

18 whatever happens, the method blank goes with those samples,
19 and in the end is analyzed with them.
20 And it is supposed to tell you whether your samples
21 have picked up something in the process of those samples.
22 So what the EPA says is if you have acetone or one of those
23 first 5 -- you have some acetone in your sample at, say 50
24 micrograms per liter, but you had that method blank at ten
25 micrograms per liter, the EPA says we can't tell whether

31

1 that acetone came from the site or came from the lab. You
2 can boot it out because it's not reliable. It's less than
3 ten times what you found in the blank. You couldn't tell
4 the difference between it and site contamination.
5 If you have more than ten times, then the
6 probability is that it's not laboratory contamination and
7 that it happened on site. That's sort of a criteria. They
8 take that one step further. There are chemicals that are
9 uncommon meaning anything else. There are all kinds of
10 other laboratory contaminants: zinc in groundwater.
11 Method blank is very, very common.
12 If any of you want to go through the tedious
13 exercise of going through the names, there's a section on
14 what was seen in the method blanks in the original RI and
15 it's pages long. There are a good dozen chemicals, none of
16 which are on the list of common contaminants that occurred
17 in the blanks from different laboratories.
18 So laboratory contamination at various levels is a
19 common problem, and one that results in this confusion
20 about is it a site chemical or did I acquire it at the
21 laboratory. And for this the guidance says we won't be
22 quite as liberal. We'll say that you can reject data if
23 you have five times or less what you see in the method

24 blank. So if I have 5 micrograms per liter of zinc in my
25 method blank, any sample with 25 micrograms of zinc or
32

1 less, I can reject that because that was in that batch
2 associated with it. I can reject it and say I don't know
3 if it's really there or not, or whether I picked it up in
4 the lab. I wanted to give a little detail to this process
5 because it's one of the processes that we're struggling
6 with as we speak.
7 Infrequently detected chemicals. Let's give a few
8 examples. There are natural occurring trace elements not
9 commonly measured: Scandium, Lanthanum, Lithium. We have
10 a few that are done by the NIC of the EPA that looked for
11 elements a good two or three dozen, a number of which
12 absolutely or they are not commonly contaminants. There is
13 no toxilogical -- there are chemicals used for forensic
14 purposes.
15 They are in our database. There's a number of
16 those that have shown up in our database including this
17 NEIC data. And we're going to give those the boot because
18 they don't have any relevance for us.
19 Potential contaminants detected during one sampling
20 event across the multisites. When you take a look at
21 something in it's broadest context, in a series of time, if
22 the contaminant that you see at point X, I didn't see it,
23 now I do see it at point Y, and then I don't ever see it
24 again. I'm suspicious. And this doesn't make sense and
25 that's when you dig a little deeper to look and see, is
33

1 there another explanation for this. Is this really a site

2 contaminant or is there something else that explains it?
3 Two are awful in terms of having the data points
4 and then chemicals detected in less than 5 percent of the
5 samples. Any chemical that we see very infrequently we're
6 going to take a harder look at just because of the number
7 of laboratory problems that we've seen.
8 So it's not -- it's prudent to take a hard look.
9 Because, in fact, problems are more common than any of us
10 would like to admit.
11 EPA's final caveats. These we almost do not accept
12 at face value. All remaining analytical results, meaning
13 the other steps that we've performed, or we've screened
14 data for contaminants from the lab. They are saying okay,
15 even the ones that pass through, those don't take those at
16 face value. And they are asking us in the second one
17 determine the limitations and uncertainties associated with
18 the data so that only data that are appropriate and
19 reliable are carried through the screening process for
20 evaluation.
21 They recognize the difficulty in writing a
22 guideline that fits all circumstances. And they are
23 inviting us to do what we are supposed to do
24 professionally, use our professional judgment and
25 experience in saying what does the data say to us.

34

1 So that's a segway into the next part. I divided
2 it into two parts. One is guidance screening, meaning what
3 the EPA says I should do. And then I go beyond that with
4 what I call practically screening, in terms of what else
5 should I look at. This involves just the asking of a
6 number of simple questions. These are a couple of
7 examples: is it a major element in the earth's crust such

8 as silicon, iron, aluminum, potassium, calcium.
9 We have that in groundwater and soils. And you
10 tell me how we're going to distinguish elements that are
11 major elements in the earth crust from the contamination.
12 They don't even belong in the correction of contamination.
13 Is it a chemical that has commonly has analytical
14 problems and MTBE by method 8020. There are a number of
15 methods for doing MTBE, some of good and some are less
16 good. I'll be conservative in my criticism. Method 8020,
17 strictly GC method, most chemists tell me in the data
18 samples that run through their lab, a good 40 percent plus
19 are false plus, meaning the analysis will say you have
20 MTBE. And when you go to confirm it in every sense -- it
21 is a function of a method that isn't quite up to the
22 identifying specifically that particular chemical.
23 So part of one of the questions we ask is how many
24 of those kind of methods do we have in our database, how
25 much data do we have that we should look closer at. And in
35

1 some cases some of the metals: Selenium, Thallium, or
2 Antimonybyicp (sorry don't know what this is).
3 I have just finished another project in Santa Clara
4 where high Selenium was registered and that Selenium was
5 not there. When I submitted those samples to three other
6 methods no detectable Selenium was found in any of them.
7 The explanation when you pull the science apart is with the
8 ICP method. This method that is used commonly there is all
9 these spectras of different elements mixing together. And
10 there are various computer analyses.
11 This is due to this and that. And some of those
12 all go. It's not sophisticated enough for the complexity
13 of the samples presented to them. So I ended up with a

14 long fight to demonstrate that an initial analysis by ICP
15 was absolutely false. And had I not done contamination
16 analyses by other methods I would have been stuck with that
17 as a chemical of concern, and it is not there.
18 The last question is, for example, real practice
19 ones I've got analyses for. An example -- and I don't know
20 where it is. I don't have coordinates. It's useless to
21 me. That's dumb data. It's worse than no data. There are
22 all kind of questions like that that are involved in this
23 practice screening. It all boils down to the final
24 question, which is there evidence which suggests that there
25 is a problem with the data? And that shows up in data
36

1 analysis when you do graphs and plots and various other
2 forms of analysis.
3 The 5 percent rule that the EPA has talked about, I
4 think, is a specific example of that general question. In
5 other words, oh the fact it only occurs very infrequently
6 is one indicator of a problem. And it's only one. There
7 are others. And that's why I think that last question is a
8 generality. What else do we have evidence for?
9 And there's a final point. And that's about
10 quality control. The chemical analyses we have aren't
11 widgets. They aren't manufactured goods. In manufacturing
12 you know when you have a bad product. With chemical
13 analyses it's very difficult to tell a bad product and
14 that's absolutely key. Actually discerning whether you
15 have a bad product takes some thoughtful examination as
16 there were in that caveat. Some look harder and more
17 closely because Murphy is out there and he's alive and
18 well.
19 So I want to make that point that quality control

20 for these sorts of measurements and quality control of data
21 is not an easy thing to recognize. Here is a particular
22 example I mentioned, 12 DCA. And I apologize that this
23 doesn't project as big as it needs to, but what this is is
24 a print out of a particular sampling events in January
25 of 1995. This was in four days in which they collected

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1 groundwater samples all across the Presidio at different
2 sites.
3 In that data you will see that there's about 25
4 results there. About half of them actually have real
5 numbers instead of ND meaning didn't detect. There is no
6 other sampling event in the whole Presidio that looks like
7 that. I have three other samples, three other groundwater
8 samples in the whole Presidio. Unless these guys get more
9 there are only three other samples in the whole Presidio
10 that have 12 DCA at all. This says to me something is
11 wrong. How can I have it so specifically in this one
12 sampling event?
13 There are several of those points that are actually
14 groundwater wells and the graphs are pretty simple. These
15 two were the samples collected in January 1995. We can't
16 see it folks. It's not there at a detectable level. This
17 is an example of what we do with this. We practically
18 screen this 12 DCA, and I can actually add more information
19 about it. You're going to say well, Bruce this is
20 cavalier. I think this is really a chemical on this basis,
21 it's weight of evidence here.
22 12 DCA is commonly an additive in gasoline, an
23 anti-additive used at one time. Maybe it still is. So
24 you're going to see it with gasoline. When we see it as a
25 result of gasoline contamination there's loads of Benzene

1 with it. These guys have no benzine. So the travelers
2 aren't with it. The second thing is, and all you have to
3 do is talk to a good laboratory GCMS person and ask them
4 how often do you see 12 DCA.
5 They will say, oh, I see it all the time. Well
6 tell me more. Well you see what happens is one of the
7 chemicals that we put in for calibration, one of those
8 chemicals when you measure it BGCMS is very, very close and
9 it gets misidentified by the computer. That goes same with
10 data and says this chemical is such as it has kind of a
11 Window in which it accepts or rejects identifying
12 something.
13 And the window comes over here to about the area
14 where 12 DCA is and it picks up this chemical that has been
15 added for quality control and moves on. The reason we
16 don't see it in post of their data is quite simple.
17 There's a human being between us and the reports.
18 The head chemist for that part of the lab has to
19 review all these GCMS results at the end of the day and
20 approve them. And they go through that they look and see,
21 wait a minute this retention window is overlapping and it
22 is offset a little bit. That isn't DCA and you never see
23 it. It gets reported as nondetectable.
24 What we have here is a time when in the laboratory
25 that was doing the reviewing was pressed to the wall, and

1 it didn't happen, and the data went out the next day. That
2 happens in the world. One more point, so you can see how
3 things happen in a laboratory, how quality control happens

4 in the laboratory is by redundant visual inspection. You
5 put all the technology to the side.
6 What happens is Chris is the chemist on the bench.
7 He does the measurement and he looks at his data. I'm his
8 supervisor. He passes it to me part way through the day.
9 I look at it, does it look okay? So I look through lots of
10 them. I pass it to Sharon. Sharon is my supervisor. She
11 looks through it, but she has a pile like this. So she
12 says it's okay. And finally it goes to him and he says I'm
13 the project manager does it look okay. Yes, it does.
14 Everybody else has signed on it. I will send that
15 information out.
16 It's a process -- as a quality process it's scary
17 because it's very much dependent on fatigue, workload, and
18 lots of other things you don't want to think it's dependent
19 on. So it's those -- it's knowing those kind of things and
20 looking for these kind of patterns that is the essence of
21 this practical screening. We're talking about looking
22 deeper into the data and saying what does this mean? Does
23 this mean a site contaminant? Or does this mean someone
24 was fatigued At the lab?
25 That's the overall screening process part of what's
40

1 happening in the screening process here. Parallel subtext
2 is to identify what our naturally occurring metals in the
3 soil at the Presidio are. Everybody recognizes that the
4 earth's crust has 100 plus different elements in it at
5 different concentrations. And some of these are like the
6 example we used earlier. They are not contaminants we are
7 not concerned about, but some of them: lead, zinc, copper,
8 chromium, some of these others can be man-made.
9 Sources can reflect real contamination. So what

10 we're also doing in parallel to this screen process is
11 developing background information on what are naturally
12 occurring metals in the soil at the Presidio. And you
13 probably had a talk last year about the Churchill study
14 that was done. And that brings up the fact there are
15 probably four major types of, I'll call them soil. They
16 are really the parents of soil here in the Serpenite beef.
17 Do you know what Colma formation/Chert/Shale is?
18 This is reddish brown interbedded material that's shale
19 and then these hard cherts that are not on the Presidio
20 naturally, but have been moved here in places and used as
21 fill. But these are sort of basic different lithologies.
22 We call them soil types and when we try to figure out
23 what's the natural background concentration in these
24 materials. We're going to do it by the material. They
25 are going to be very, very different one to another.

41

1 How do we define background metals? How do we look at
2 it? First of all they are based on samples believed to be
3 unaffected by contamination. So we have a suite of samples
4 we say are background samples for each metal. This
5 background is going to be a collection of values not a
6 single number. It's not one number.
7 If I go to the Serpenites across the Presidio and
8 take samples in areas that have not been affected by site
9 activities and I analyze chrome I'm going to find a lot of
10 different chromes. So background for each metal background
11 differs for different soil. You will have an example of
12 that in a minute.
13 Our ability of seeing that sort of thing varies a
14 lot. Some of them we can see very poorly. Some of them we
15 can see very clearly. And so this complicates our task of

16 identifying background metals. This is what I mean by
17 direction. Most of you who suffered through a college
18 statistics class measured and talked about the heights of
19 children ranging from 8 to 10 in Santa Clara County. And
20 if you plotted them out not everybody is the same. And it
21 makes a bell shaped curve.
22 Well, it turns out for most earth science data, the
23 bell shaped curve is not a good approximation of what's out
24 there. It's a screwed up curve. It is one that's kind of
25 bumping up against the left-hand side there of what people
42

1 call a normal looking curve.
2 Just by way of information, the normal derivation was
3 defined for studying errors not everything under the sun.
4 So this is an approximation, a visual approximation of what
5 most of the naturally occurring metals, and what their
6 direction would look like if I measured the chrome out of a
7 hundred samples over a random area and measured the chrome
8 and plotted a histogram it would look that. There is not a
9 single value for chromability to see if I plot an original
10 line there and say this is the line between where I can see
11 and where I can measure and where I cannot.
12 It's different for these different chemicals. This
13 is a cartoon that comes from the chert hill data. And I
14 said what can I see and what can't I for Selenium and
15 Mercury. Most of that curve is invisible to us by methods
16 ordinarily used. We can't get a detection. We can't see
17 the ordinary levels of Selenium and Mercury are below the
18 ordinary methods. Arsenic I can see a little bit. I can
19 see a few detections. However, most of the direction is
20 not advisable to me as an analyst for Cadmium and Beryllium
21 with nickel and chromium (what is this).

22 It is pretty well visible. And with Barium I can
23 see the whole thing. And that will be the struggle for us
24 for some of these metals. When you are going to ask what
25 do you do when all your analyses and background are not

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1 detected that's a good question. It has to do with this
2 ability to see.
3 So what we do for each metal and lithology is we
4 ask the question, "Is there a reasonable upper limit to
5 that direction." We'll call that the threshold and say
6 above the threshold values are considered anomolous meaning
7 unusual and warrant further investigation in terms of
8 possible contamination.
9 So, we're defining a threshold above this. I'm
10 interested below that. I think it's background and I'm not
11 going to bother. Threshold determination if sufficient
12 detectable data. And if you remember the curves where we
13 had more than a teeny bit on the end, we can model the
14 direction as log normal one word and take the 95th
15 percentile.
16 So we'll say 95 percent of my data falls below
17 this. Therefore, if I get something above it it's pretty
18 darn unusual for a background value and therefore I will be
19 interested in it and it may be indicative of that
20 examination when I get to those situations where I hardly
21 have any data or a small amount of data. I can choose
22 among a number of things. It is a judgment choice. I can
23 take the maximum value detected. For example, if I've got
24 50 samples and 49 are ND and just above ND I have a single
25 sample that says the max was measured at 5, I could

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1 consider making 5 my threshold.
2 Another approach, the most common detection limit,
3 the Army used this for some metals when it had no data. It
4 said I'll take the most common detection limit, I apply
5 that. My methods bring to bear when I'm analyzing this.
6 Therefore, if I get a detection I'm looking at
7 contamination. I can't see below that anyway. If I see
8 anything I'm interested and it's going to call that to my
9 attention.
10 And the third choice is average crustal abundance
11 value. There is a lot of information out there that talks
12 about this. The earth's crust, in general, reflects the
13 compilation of lots of data. In the earth's crust, in
14 general, you're going to see 2.8 ppm Berillium. That's
15 average. What that says is if you can set that as a
16 threshold and says I really don't want to try to clean up
17 below crustal abundance, that doesn't make a whole lot of
18 sense. How much of the earth's crust do I want to try to
19 get rid of?
20 So that's a choice. Again there are places we aer
21 going to have to go to make a judgment call for those
22 elements that we have very little detectable data. And
23 we're going to have to make a call what our threshold is
24 going to be and in which of the above am I going to be
25 interested. This is an example of background thresholds by
45

1 soil type. Some of them are numbers that have already been
2 put in tables and others are new.
3 What this shows is that there are vast differences
4 between these particular soil types, these particular rock
5 types, these parents of soil in their metal make up. The

6 Serpenites stand out with their nickel, chromium and
7 Cobalt. They have those kind of values and are higher all
8 over the state. Again Serpenite is the state rock. There
9 is a good 2,000 square miles and more in Oregon,
10 Washington. This is a whole belt of Serpenite, but it has
11 inherently high values of nickel, chromium, and Cobalt that
12 can be problematic in terms of those kinds of levels.
13 Due to contamination these are the kind of levels
14 you are going to see in those of rock in the soil. Beach
15 dune is one of the lowest. If you ever thought about
16 analyzing the sand in the beach at Baker Beach or any other
17 place there is probably not much in this. This is because
18 it doesn't carry a lot of metal. Colma is a little bit
19 higher and chert shale is in between.
20 So, we're looking at this very specifically by this
21 in defending these thresholds above which I'm interested
22 and below which we're going to say I can't tell this number
23 isn't just naturally occurring. In fact, I'm going to make
24 that assumption.
25 So returning to the beginning here as closing this

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1 up, what we're doing here in this exercise is both defining
2 the levels of naturally occurring metals in soil and in the
3 overall screening process of what's in the database.
4 First, step one, is being done in parallel of derivation of
5 the cleanup levels and even actually when this screening is
6 done.
7 And we're going to feed this information through
8 the filter of these cleanup levels and out the back end of
9 that. We will bring out the list of final chemicals of
10 concern and these are the ones that Chris and George will
11 have to do something with. That's probably more than

12 enough.

13

MR. KERN: I'd like to see at this point how

14 many folks might have questions for Bruce about his

15 presentation mostly because our recorder has been going an

16 hour and a half and we usually like to give her some finger

17 break time.

18

MR. BERMAN: Can we meet after the break and

19 deal with questions then?

20

MR. KERN: That's what I was thinking.

21

MR. LOLLI: I'd like to thank you very much

22 for your presentation. You've been able to answer a lot of

23 questions in an area I wasn't to familiar with. There is

24 one area that's going to be coming up. I am an member of

25 the American Legion where the full cemetery is for final if

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1 for many people's final resting home. Now if the question

2 comes up does that area in the trees and what not, would

3 that need cleaning?

4

MR. NELSON: That area is actually under

5 separate jurisdiction from the Presidio Trust. So that

6 would be taken up with the BA. They actually administer

7 the operation of the cemetery and I believe all these

8 negotiations regarding the cemetery has been excluded. So

9 the Presidio, RAB, and Trust are not addressing cleanup

10 issues at the cemetery although I'd like to believe there

11 aren't any issues.

12

MR. LOLLI: In other words the trees, and
13 the grass, and the weeds are not affected?
14

MR. NELSON: My understanding was that for
15 quite a while, and it's probably been just that fixture and
16 nothing else, is such that it may be before it was a
17 cemetery before even any humans were here.
18

MR. LOLLI: I would like to tell you to the
19 members of the American Legion this is an important point.
20 They want to get for the final resting place. They are
21 going to try to get the space for future burials.
22

MR. KERN: I'm going to take a ten minute
23 break and return for questions. Thanks.
24 (Brief recess)
25

MR. KERN: If those of you that have stayed
48

1 with us have questions for Bruce would please sit down.
2

MR. BERMAN: Comment first and a couple
3 questions, I guess. I think it was a very professional and
4 very interesting presentation. And I kind of hated to see
5 what we thought was perfection is showing it might not be.
6 But putting that aside, a couple of things occurred to me
7 in the course of this. And first you commented very
8 briefly -- and it triggered a thought.
9 In listening to what you were saying it seems to me
10 you're going after these individual elements and potential
11 chemical contaminants, but what we've learned in the past
12 is there was almost always -- that there is not a single

13 contaminant. There is a cluster of things that is
14 associated with the contamination. And it would seem to me
15 that one of the laboratory procedures you could use them in
16 the screening process is when you find something, like in
17 the example that you gave, that is not accompanied by any
18 of the things that are normal and associative.
19 So it would seem to me that a cluster analysis of
20 the potential contamination would be an easy way of
21 eliminating these spurious chemicals that come up as all by
22 themselves.

23

MR. CASTLE: I agree that is the tool box of
24 things that we look at in the practical screening. I
25 should have had it in there. Is it part of a group, or is

49

1 it not sitting out there by itself and therefore sort of
2 increased. That's a good point.

3

MR. BERMAN: And it would seem to me it
4 would handle a lot of the threshold problems because if you
5 get something that is a little bit above threshold it's all
6 by itself. It seems to me you need a cluster threshold
7 also so you would have a quick way of dealing with things
8 that are at least in being examined more carefully. Seems
9 to me that would be a good program to put in the computer
10 analysis right from the beginning to reduce the potential
11 secular elements coming in that are just areas in the
12 screening process.

13

MR. CASTLE: I agree with you 100 percent.

14

MR. BERMAN: I have a second question. And

15 maybe I misunderstood what you said so this is for
16 clarification. You dispensed with potential of re...(what
17 is this?) and lanthnium as being potential contaminants.
18 But I remember reading somewhere in the past that
19 fluorescent lamps and phosphorescent bulbs contain those
20 rare earth elements, and there been millions of fluorescent
21 lamps since the 40's or so in the Presidio.
22 And my questions is that they weren't all shipped
23 out after they burned out and they were probably buried
24 somewhere in the Presidio. And therefore I can see a
25 potential source of those particular rare elements and, of
50

1 course, as a cluster now would be valuable because they are
2 associated with Cadmium.
3 So it seems to me that one has to be careful about
4 arbitrarily saying there's no reason that these rare earth
5 elements wouldn't be here because in fact my guess is
6 there's probably millions of fluorescent lamps crushed and
7 buried in the Presidio.
8

MR. CASTLE: You are right. The itrium and
9 lanthium, the limited amount of analyses, of the NEIC
10 analyses, the levels are again very, very low and in line
11 with what you would expect. In terms of crustal abundance
12 they aren't elevated as you would expect from rare earth's
13 elements or from crushed bulbs. And with that scenario I
14 would expect to see mercury in very elevated
15 concentrations.
16 Again clusters that points to -- okay, here's the
17 signature and maybe Cadmium and mercury are the initial
18 signature of a place where a lot of these have been crushed
19 and dumped. And having established by going and sampling

20 more and by seeing there is a lot of bulb debris, then you
21 would look harder at the other elements to see if you had a
22 total signature of them.

23

MR. BERMAN: So just the levels you found of
24 rare earth low below your natural thresholds?

25

MR. CASTLE: That's right, yes. There was

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1 nothing unusual about them at all. Actually those elements
2 I mentioned they were of use forensically. I think the
3 reason the NEIC includes them is they are very, very
4 valuable for telling you what the parent of a particular
5 soil is. And it is unlikely that an unlikely contaminant
6 can help you answer questions. I'm sure that comes up for
7 forensic folks. Did they say it was this? And
8 it's really that some use them -- some of these fingerprint
9 elements to say it has these sorts of levels.

10

MS. CHEEVER: I have a question about the database.

11 When you were talking about it I was reminded of a question
12 some of us had when the Army was working on the cleanup
13 several years ago. And that was, is the database in the
14 computer advanced to such a point that if you wanted to
15 take a certain chemical such as Mercury or lead and take
16 all samples above a certain level, could you do things to
17 the computer in such a way you could fairly easily have a
18 computer print out a map of all the samples of, say
19 Mercury, that were above a certain level Presidio wide?

20

MR. CASTLE: Sure. One of the things we're

21 struggling with right now is sort of the link between data

22 as we have it with the data base. And the display on the
23 special floor, which is that whole area you call JO(name of
24 software?) information system. The link is having
25 coordinates for each and every one of those samples that

52

1 has Mercury. If you have coordinates for all those then
2 you can link them in such a way so they display on a map.
3 And fingerprinting them is very, very easy.

4

MS. CHEEVER: Do you have those coordinates
5 now?

6

MR. CASTLE: That's one of our struggles.

7 There are a number of gaps in the coordinate picture right
8 now that we're trying to fill. And that will either be
9 filled either by survey data we didn't get that was off in
10 this corner or that corner and got omitted, or it exists on
11 maps as points on maps right now. And those maps can be
12 brought into a program, and you can sort of derive the
13 coordinates from that and bring the coordinates back into
14 the database, and use it for any other kind of display.
15 That is one of the things we're wrestling with
16 right now the concept you're talking about is where we want
17 to go so we can get the database to the point where we know
18 every point has a coordinate, and we know it's right, and
19 the people who originally plotted them on the map say, "Yes
20 it sits here. This is where I put it."
21 Then we can do any of those kind of displays very
22 very easily.

23

MS. CHEEVER: Certainly a lot of the
24 groundwater wells are still there so you should know where

25 those are?

53

1

MR. CASTLE: Those aren't the problems.

2 It's those one time grab groundwater samples that are now

3 covered by grass, and we don't quite know where they are.

4 And it didn't get surveyed at the time because it was

5 informational sampling and they didn't take it seriously.

6 So they didn't mark down coordinates.

7

MS. CHEEVER: Is this still being worked on

8 though? Will you have the answer, or the possibility of

9 doing this in time to have it really affect the Feasibility

10 Study?

11

MR. NELSON: I think there's two things

12 going on here with regards to the database. First of all,

13 we went through a colossal struggle with the Army to get

14 the data, and we've gone through the process of hiring

15 Montgomery and Watson, who happens to be our consultant, to

16 transfer the data to us. One thing is we have a contract

17 with Montgomery Watson to transfer it to us in a usable

18 form. And we're also getting data to EKI.

19 We are trying not to duplicate efforts because it

20 would be a waste of our sources to use it for the

21 Feasibility Study process while also having the ability to

22 do what you were asking about, and to use the database to

23 do some long term looking at what has the groundwater

24 monitoring been saying for the last 4 or 5 years, which

25 really hasn't been done even by the Army in their quarterly

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1 or annual reports.

2 So to the extent that we need to get all
3 coordinates together to screen the data, I think we're
4 going to do what we can to do that. In some cases I think
5 we'll be able to look at the data and see the date. And
6 maybe there is a locational field. If it says "DRUM" then
7 we know it's probably not important; it's not the
8 environment it's in a drum and shipped off or something
9 like that.

10 So one of the things we failed to mention in
11 talking about this screening process is we're -- we like to
12 toot our own horn. We're trying to improve upon what the
13 Army had done. We're looking at some of the things in the
14 chemical screening process that the Army did not look at,
15 that they should have. Certain coordinates and locations
16 of samples are important. We're looking at quality control
17 very carefully as well.

18

MR. CASTLE: I think the short answer also

19 to your question also is because we will narrow the field.
20 We'll screen out a lot of these peripheral things that are
21 not of interest or not relevant, the subset. The stuff
22 that we're interested in that doesn't have coordinates will
23 be much smaller, and therefore we'll be able to fill in
24 those gaps for display and analysis much more quickly than
25 if we said we're going to do it for the whole thing, even

55

1 though 3 quarters, or whatever the number is, are of no
2 relevance to us. We push those off to the side and then we
3 can narrow our vision and come to some workable solution
4 much more quickly.

5 So we can use it as a tool in the screening, and as
6 an ongoing tool for Chris and the staff here to move on and
7 keep up on the special analysis of the data.

8

MR. YOUNGKIN: So the data you're working
9 with now, is that data already been filtered by Montgomery
10 Watson?

11

MR. CASTLE: Right. I'd say about a third
12 of it is the Dames and Moor data and two thirds is
13 Montgomery Watson. Each one has applied a whole series of
14 quality control steps internally to the production of
15 those. The two of them have been put together. You can
16 tell by looking at them when you use them, they weren't
17 generated by the same source. There are definite
18 differences, but certainly both organizations have done a
19 lot in terms of the quality control of that data.
20 I have to say from some one who builds database,
21 it's like housework. It's just never done. And when you
22 have large amounts of data, and historical data, and that
23 sort of thing you can go through that program visually and
24 think I've got it, and then you find the imperfection. You
25 say there's the thread hanging out. There's something that
56

1 doesn't make sense.

2

MR. YOUNGKIN: You said, "the 5 percent."

3 Have they already taken that 5 percent out?

4

MR. CASTLE: No, I think actually the
5 database is a very realistic snapshot of all the data. I
6 think the philosophy has been put it all there and put

7 flags on it and a way of identifying it as more or less
8 reliable data. But it's all there. We're not hiding
9 anything. It's here.
10 There are two philosophies that go with this, and
11 that is everything is there and let the buyer beware, so to
12 speak. It is up to you to sort it out. And the other
13 philosophy is no, I'll use my judgment to toss this and
14 that out. And somebody comes and says, "What did you do
15 with that data? What are you doing here?"
16 So the database as it stands reflects the first
17 philosophy, let's have it all there, and flag it as well as
18 we can. But it's all there.
19

MR. O'HARA: I was sort of curious in terms
20 of doing your survey for identifying locations. In a
21 couple of sentences, how do you do it?
22

MR. CASTLE: In terms of looking at places
23 that don't have locations right now? Is that what you
24 mean?
25

MR. O'HARA: Well, if you were going back
57

1 and trying to identify locations how would you do that?
2

MR. CASTLE: I guess it's going to depend on
3 whether you do two things. One, you're going to look at
4 the ground and see whether there's still evidence of it for
5 areas that have been degraded, or dug up, or that sort of
6 thing. You don't do that other places. You can sometimes
7 with sampling. There's a plug of gravel or cement that
8 tells you where it was exactly, and you can go there and

9 say here is where it was. Here is a surveyor. I am going
10 to have him look at it.

11

MR. O'HARA: It's a surveyor that plots the
12 coordinates?

13

MR. CASTLE: That's one of the approaches.

14 The other is if the evidence is long gone, it's been
15 graded, or it's over ground, and there's no way you can
16 tell where it was, but it is on a map, we take the map and
17 as best we can put that map in real coordinate space on the
18 basis of we have base maps that are real coordinate space.
19 And we jiggle that around until we get the best fit of the
20 original map that had the planned plotted point.

21 This is as good as it gets, and therefore I will
22 derive from my base map the actual coordinates of these
23 things. I sort of work backwards, work it from a survey
24 where a surveyor does it because I have it on a map, and
25 I'm going to get the map into a coordinates system. It's

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1 done both ways in combination to fill in gaps.

2

MS. MONAGHAN: My question has to do with
3 injecting samples. When we were looking at the Feasibility
4 Study all of us felt the Army hadn't sampled enough. So
5 I'm concerned if we're rejecting samples, how are we going
6 to catch up with places they didn't sample accurately or
7 completely?

8

MR. CASTLE: It's a question, and I think
9 one of the jobs we have really is to identify those places
10 where we don't know enough to make this decision. And if

11 we toss out 50 percent of what's there because, in fact,
12 it's bogus, or at best questionable, we're not doing
13 ourselves any favors in terms of trying to make a decision
14 in what to do there.
15 And suddenly there's only a few points left. And
16 we all look at each other and say we can't really decide.
17 We have to go back for more information if we're going to
18 be intelligent about how we decide the extent of
19 contamination. If we don't know, that's well enough, it's
20 back not the drawing board, back to the field to collect
21 those things.
22 And for programs that are old and have history
23 behind them that's a hard thing to admit that part of what
24 we've thought we had in the bag for all these years is not
25 quite right, and therefore I have got a gap.

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1
MR. ULLENSVANG: I wanted to touch base on
2 that. I really don't think we're talking about throwing
3 out tons of data that has been identified, and used, and
4 been moved from the RI to the FS. We're talking about the
5 screening process. In itself there is a great -- we had to
6 deal of with a great deal of data that is usable, and as
7 contractors we're talking a very small percentage that gets
8 thrown out. And it gets thrown out for a lot of the
9 reasons Bruce talked about today.
10 And on top of that we are going out, as we talked
11 about earlier, to fill in the data gaps to supplement the
12 information we have for the Feasibility Study. I wanted to
13 put a perspective on that.

14

MR. NELSON: In terms of remedy selection

15 and gathering additional data, what we tried to do with
16 EKI, we tried to identify the sites where we truly could
17 not make an educated decision about selecting a remedy.
18 And there were other sites where there would be other
19 opportunities. And what we find in the field will affect
20 how we implement the remedy. There will be a monitoring
21 process on contamination that will tell us the extent of
22 how much contamination there is or if we're looking at a
23 landfill.
24 And we're deciding how we're going to design
25 remediation for that landfill. It could be we find more
60

1 than we thought, so we add a cap to that side as well, or
2 we are excavating that side as well. We will still have
3 opportunities to further answer questions about that data
4 as we can get it.
5

MS. CHEEVER: To ask Jan's question another
6 way, are you going to be using some data the Army didn't
7 use in the RI or the FS, and there was discussion about how
8 the Army didn't go further than 6 inches, 3 feet for
9 various ecological reason and for human effects. And are
10 you using that data that the Army didn't?
11

MR. NELSON: Yes, we are absolutely. The
12 database has it all in it. We've been told by the DTSC we
13 are not to make decisions based on arbitrary depths. That
14 doesn't apply. And that was discussed in a meeting on
15 June 13, with Klein and toxicologists with DTSC. So that
16 would be used as well.
17 Now in selecting a remedy there may be a depth
18 applied to where a cleanup is appropriate and where it's

19 not appropriate. So that information, it's not going to be
20 thrown out, but it might not be applied.

21

MS. CHEEVER: You've just said now you are
22 using more data, so --

23

MR. NELSON: Data that's been collected
24 since the RI. There's years and years of monitoring since
25 the RI.

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1

MS. CHEEVER: You're also using data that
2 was not considered in those two documents?

3

MR. NELSON: My understanding is it was
4 stuff collected up to the RI.

5

MR. ULLENSVANG: The Army threw out data
6 within the landfills of a fairly shallow depth. That's
7 being used. EKI is considering any data collected within
8 the waste of the landfill just because its 3 foot,
9 6 inches -- because the landfill is heterogeneous. That
10 could have been at 2 or 6 inches down.

11 And so looking at the waste it doesn't make sense

12 to draw a virtual line within it and subdivide it if there

13 were two landfills next to each other or something

14 artificial like that, which we don't have at the Presidio.

15

MS. CHEEVER: I think it's great you are
16 considering that. It's a very profound reinvestigation of
17 the FS in some ways, which is a good thing.

18

MR. PONTON: I have one quick question. In

19 your example for D 1.2 ppm, 1.4, does the database have NDs
20 residing in it where you have to go back and in put the
21 detection?

22

MR. CASTLE: No. The database the way it's

23 presently structured, it carries a numeric result, or an ND
24 in one column. And then another variable carries the
25 quantification limit, detection limit. So that for those

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1 that are ND you look over to two columns and ND defines
2 less than 0.55. So that information is residents in there.

3 And I have checked that one pretty well.

4 So there's very, very few if may be no examples

5 that we don't have that information for. So, when we have

6 an ND we know what that really defines.

7

MR. YOUNGKIN: How does it flag QA or

8 surrogate problems?

9

MR. CASTLE: This is where you see a vast

10 difference between the two groups that have done the

11 database. Montgomery Watson has an elaborate coded system.

12 There's an actual qualifier field that qualifies each

13 result, and there's an elaborate set of codes that

14 Montgomery Watson has that says there is blank

15 contamination, or QC measure was out of bounds. And it has

16 35 or 36 different flags that they've got the challenge for

17 us, that are different than the codes that we were used by

18 Dames and Moore.

19 And they have a whole plethora -- and there was

20 almost nothing in common between the two except "R," which

21 defines reject. But part of our challenge is unfilling
22 that. So that when we combine the two we know which
23 samples had a problem because of blank contamination from,
24 say zinc. It's this set of flags in Dames and Moore, and
25 it's this set in Montgomery Watson.

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1 That's a solvable problem. It's just interesting
2 dealing with two different systems. But they are flagged
3 consistently in each system.

4

MR. BERMAN: I don't mean to take your time
5 but I thank you for being so patient. When you looked at
6 Serpenite and you found the high value of chromium were you
7 able to segregate the dry from the hexavalent chromium?

8

MR. CASTLE: The fact that it exists in
9 chromium might -- is it Chrome 3? And the analyses are for
10 total chromium. It does not differentiate between chrome 6
11 and 3 in soils. That is a separate analysis to look at
12 chrome 6. I think we have some, though not very many,
13 analyses of chrome 6 that came out of that chrome 6
14 program.

15

MR. ULLENSVANG: There were some from EKI,
16 but they were done with a method that was not approved by
17 EPA and EPA said they had false positives.

18

MR. BERMAN: So I was trying to find out
19 whether we have new information on the naturally occurring
20 hexavalent chromium, at least the ratio, maybe there is an
21 established and known background ratio of hexavalent
22 chromium to compare that with the samples that were taken

23 here just as a crude measure?

24

MR. ULLENSVANG: I think one thing to watch

25 is that we knew that in the soil. It doesn't mean it would

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1 necessarily be the same ratio in groundwater. What we

2 would surmise, because sometimes 6 is more volatile in a

3 small percentage in the soil, but a higher percentage in

4 water. So it's more complicated if it's 50, 50.

5

MR. CASTLE: Just from the minerology where

6 the chrome is in Serpenite, the vast majority of it should

7 be chrome 3, just because of how it sits in the chrome

8 might in the minerology itself. So it argues again the

9 theory that the amount of chrome 6 in it should be very

10 low.

11

MR. BERMAN: Yes, but the carcinogen is

12 chrome 6, so the interest is whether there is any chrome 6

13 there. And there is this controversy that we have been

14 presented that is this chrome 6. The elevated chrome 6

15 that was found by some analyses in the groundwater, is that

16 associated with a naturally associated occurring chromium

17 compound, the different chromiums in the Serpenite? And I

18 guesses we don't have any answer to that, and you're not

19 deriving any.

20

MR. CASTLE: To be honest I haven't looked

21 at that part of it in terms of the background. I was

22 looking at the grosser chromium and that sort of thing.

23 Karen Bell is bugging me about chrome 6 and I haven't got

24 there yet.

MR. NELSON: I can add a little bit to that.

1 We did, as I mentioned in the last couple meetings, we have
2 discussed this issue because it is one of these lingering
3 things we adopted from the Army when we took over. And we
4 did move forward with it with the current ring leaders.
5 We're dealing with looking at that study and we presented
6 to them, I believe it was in May, the information and had
7 them read the reports again.
8 And EKI came and gave a presentation. And we're at
9 this time waiting for an answer on what the State's
10 position is. We're going to get a letter from the DTSC and
11 Ecological Board on how they are going to allow us to
12 address the hexavalent issue. So we don't have an answer
13 at this time. I can tell you what we hope we're going to
14 hear, whether we're going to study this and do additional
15 study to look into this issue. I don't think that's in the
16 works at this time. We have to put that issue to rest and
17 move forward with the Feasibility Study and cleaning up the
18 sites.

MR. KERN: I have a couple of questions and

20 I want to thank our audience and Bruce for allowing us to
21 grill you. My question is one on the naturally occurring
22 metals. And last month I think we heard that the fill
23 category methodology was being dropped as a the category.
24 And I'm wondering are we picking up a proposal, or do we
25 have a new category with the church? Is that now going to

1 be a new methodology category? And, I guess, if so is that
2 in the database that it's been determined to be a chert
3 shale pit?

4

MR. CASTLE: The Army had Dames and Moore

5 had a chert shale category to start with. They just had
6 very little information in their one or two samples. There
7 was not anything we could do with the chert shale study
8 that has been incorporated into the database. Now we have
9 enough data to say we know the size and the shape of this
10 beast. We know very well from the numbers we've got what
11 background should look like. The category existed before
12 there was very little information to back it up in order to
13 determine the background. So that is being carried in the
14 database.

15

MR. KERN: Okay. There's a table in your

16 slides here that shows nickel and Serpenite at 5,500. That
17 number seems to have gone up between this current number
18 and background numbers. Do you have a feel for how that
19 got changed upwards?

20

MR. CASTLE: Yes. Actually I made that pick

21 based on the what I could fit to the data. The Army had a
22 different approach to establishing background. They felt
23 like there were not enough samples, and therefore what they
24 did was take site data and basically draw certain kind of
25 graphs that showed the different populations, and said

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1 well, the lowest of these populations by inference must be
2 background.

3 And that was what I've had to do. I had to do it

4 that way. In my mineral exploration days I've done that by
5 assumption before. We tried it a different way. We wanted
6 to give a little different look. And I felt that data fit
7 that very well. And I think the new data -- there is some
8 NEIC Serpenite data as well as the chrome 6. We have new
9 Serpenite data. When I add that in it supports that higher
10 number very well.

11 As a matter of fact I feel like I made
12 fundamentally different picks from how they actually
13 analyzed and worked with data. They did it a different way
14 than I did and I feel like that the 5,500 number is, in
15 fact, backed up by what we see in the new data.

16

MR. KERN: The whole background thing was

17 quite an amazing process with the Army and really quite
18 unbelievable. We're certain there were discussions about
19 different samples. Was that applicable? Was that
20 background? We went round and round and round. This
21 particular one struck me as being -- I would be interested
22 in getting a further understanding of how that might have
23 been determined. And perhaps if we have a mix now of
24 different background numbers for different methods, what's
25 the set that's done in the new way? What was the old way?

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1 That would be of present interest.
2 I was curious about average crustal abundance value
3 and wondering how often this might be applied here. Pretty
4 often it has been said, well, the Presidio has some
5 unusually site specific issues. And so if we get an
6 average crustal abundance value that's some strange value
7 from India or something because they too have a high range
8 of something. So I'm curious how much that was applied.

MR. CASTLE: It hasn't been applied up to

10 this point. I brought it up as we're taking a fresh look
11 at this whole idea of what background really is, and in
12 terms of the real choices that you can make in the absence
13 of very much data where you can't see most of it, most of
14 it is hidden from you. How are we going to intelligently
15 choose that threshold.

16 The average crustal abundance, you find them in the
17 CRC handbook. For example, those that have Geometry and
18 Chemistry textbooks, the story is many of those are values
19 from Europe and the United States. In the early history of
20 geochemistry people went around and said, "If I wanted to
21 know what the average content of such and such, where would
22 I collect samples?" What they did was go around and go to
23 places where it's been glaciated and glaciers had ground up
24 tens and thousands of square miles of rocks. And most of
25 this sediment was taken in the Europe and the United States

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1 and in large areas.

2 And those original numbers added to a lot over the
3 years, but they hold up very well actually in terms of on
4 average what you see in the crust. And I think if we
5 applied them at all this will be a discussion, not a
6 foregone conclusion. We would only include them when we
7 are talking about very low numbers. And which low numbers
8 are we going to take?

9 If I take Barium -- I've always been appalled at
10 the Army suggested 0.1 ppm when the average in the crust is
11 there was almost 3. How much of the crust are you going to
12 dig up? That's a silly number and using average crustal
13 abundances for elements that occur in very low amounts, I

14 think, gives us silliness tests.
15 In the absence of being able to see the
16 distributions, whether we end up using those in preference
17 to the maximum detection limit, or the maximum, we've seen
18 that debate hasn't happened yet. But I think there are
19 elements like Barium that it makes some sense because we
20 don't want to do something silly. We would be cleaning
21 forever.

22

MR. KERN: To touch on something both Jan
23 and Mark said with respect to screening out data, it might
24 be of some interest -- I don't know if you already have
25 plans for this -- to kind of document how much data gets
70

1 screened out. Would we be able to know, say by chemical,
2 or by per site, let's say all of the chromium data got
3 screened out for some reason, or whatever. Will that be
4 available?

5

MR. CASTLE: Right. That's a good question.
6 And I've taking a very simple approach to that right from
7 the start. We have parent Feasibility Study parent
8 database. And I've got a flag in there called the kill
9 flag. And when I put a "Y" in the kill flag, that defines
10 that one's gone for one criteria or another. So at any
11 point in time, the end of the process, or halfway there,
12 you can look at the data base and say filter on -- okay,
13 what have you got in the kill flag, and why, and run it off
14 by site. You can run them out by chemical and that sort of
15 thing.
16 We want a very specific foot track on that. We
17 killed this, we killed that, and then in the various

18 documents we'll generate. But ultimately you'll be able to
19 go to the database and say which ones are they.

20

MR. KERN: Thanks. How much is that going

21 to be modified, and is that a work in progress sort of a
22 thing?

23

MR. NELSON: Yes.

24

MR. KERN: Okay. We can talk later, but

25 thanks for taking my questions. Any other questions?

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1 Thanks.

2

MR. NELSON: I wanted to add one thing not

3 to belabor his point, but in the Alternate Remedial Action

4 document there was a discussion of how the Trust was

5 planning on deriving background metals and soils. And that

6 approach has been put forth to the DTSC. I think we had --

7 actually there was a request by one of the agency

8 representatives to have one of the geochemists look at the

9 program that's being used.

10 So I want to reiterate we're continuing to use that

11 process that was discussed in the document before, and we

12 went forward with that process. So we have new proposals

13 coming up. So to the extent you're familiar with that

14 process, that's what we're doing.

15

MR. KERN: I guess I'm not familiar with

16 that one.

17

MR. NELSON: It's one of the appendices.

18

MR. KERN: Okay. Let's move onto new

19 business. Do we have new business from anyone here
20 tonight? I can tell you that, as Chris mentioned, I have
21 received back the Main Installation Field Sampling Plan
22 tonight, and this tells me what has been incorporated. And
23 we'll give that a look through and I'll be able to give you
24 my thoughts when it's done.

25 As you know, I have submitted comments on the

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1 Contingency Plan outline. In the discussion with Chris for
2 the meeting tonight I mentioned it was an outline. We will
3 get a chance to review the full draft plan when it comes
4 out, but he's read my comments on that.
5 Those are a couple of ongoing plans that we've
6 commented on and are in the works. I guess I had a
7 question about the how people feel about the schedule of
8 the whole FS production of the documents, and kind of where
9 we are in that process. We're hearing that there are
10 things working and screening is going on, all of that sort
11 of thing.

12

MR. NELSON: Well, all of the major

13 processes except for a few that really come towards the
14 end, and we've discussed many of them here at these
15 meetings as well as in the committee meetings. The next
16 big steps are going to be when we finally get all the data
17 together including this current round.
18 And we started to identify the chemicals of
19 concern. That helps us get that final summation of the
20 numbers for human health and ecological. And then you look
21 at okay, now we have this data. That will help us

22 establish the list of chemicals, but will help ask
23 questions about sites. We've gone through the preliminary
24 discussions about screening out technologies that may not
25 be appropriate.

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1 The next step would be to start looking at the
2 alternative analysis and further whittle down the different
3 alternatives we're going to be looking at to remediate all
4 sites. So ultimately I would say we'd like to be able to
5 get a document for review by the fall. I'm really going to
6 be pushing for that as best I can. We're going to have to
7 crack the whip on myself as well as our consultants to try
8 keep the ball rolling.

9 But as usual we intend to keep everyone in the loop
10 with whatever documents are coming out for review. We
11 encourage your comments.

12

MR. KERN: Any other questions on the whole

13 FS process? Action items? I have been sort of asked to
14 get in some comments that I promised on the groundwater
15 monitoring reports. So I'm going to do that.

16 I heard from George's reports that there was a
17 diesel cleanup number that's kind of currently unresolved,
18 that had to be worked on. And I worked with consultants on
19 some of these background numbers. In my mind there's an
20 outstanding issue with the lead cleanup number that's
21 proposed. So I would like to get that on review at some
22 point.

23 Any other items that people want to start thinking
24 about at this particular time that we need to get on the
25 radar screen? Okay. Then if anyone has any agenda items

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1 give them to Mark as usual.

2

MR. HULTGREN: I don't have an agenda item.

3 I have a comment. We have several applicants for
4 membership. It's going to be a while, two or three months,
5 before they can be processed. I'm wondering if it's
6 possible in the interim to give them the courtesy of
7 receiving notices of our RAB meetings to those applicants?

8

MR. KERN: Sounds like a very good idea.

9 Are there any other items for tonight's meeting?

10

MR. YOUNGKIN: Is there fieldwork tomorrow?

11

MR. NELSON: Yes. Let me give you a brief

12 run down, if I can remember. We have to continue putting
13 in -- boring wells at Battery Howe Wagner. One of the
14 challenges is getting through the bedrock and finding
15 groundwater, which we have to do in two holes. But I'm
16 content we're going to get to water tomorrow in the second
17 one.

18 So after Battery Howe Wagner we'll most likely be
19 moving on monitoring wells at Landfill 4. Our
20 collaborative efforts are continuing with the Park Service
21 and Trust happily hand in hand making sure we're not
22 destroying the park while trying to clean it up. And I
23 would think that would take the balance of the week to get
24 those wells in at Battery Howe Wagner and Landfill 4 at the
25 rate we're going. And next week we'll move on to putting

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1 in new wells at Fill Site 5 and monitoring at Disturbed
2 Area 3 and Baker Beach.
3 And in this week's sampling of new wells we put in
4 and are also sampling some of the existing 1027. Based on
5 comments from the State, we're going to take a look at the
6 relationship at that site from there. I would think
7 probably the latter part of next week we will begin
8 trenching. I haven't decided where first, probably Fill
9 Site 1 because it's easily accessible and Landfill 4
10 presents utilities and access difficulties.
11 Smaller tasks will be going on at the Nike Swale
12 sampling and Baker Beach, Disturbed Area 4, and I think
13 that's it. That's everything.

14

MR. KERN: I would like to thank the

15 prospective community RAB members who came out tonight.
16 Thank you for being here tonight and staying with us until
17 the end. And with that the meeting is adjourned.
18 (Meeting adjourned at 9:45 p.m.)

19

20

Presidio Restoration Advisory Board Meeting

Meeting called to order at 7:15 p.m.

August 8, 2000

MR. KERN: Good evening, everyone. This is the regularly scheduled meeting of the Presidio Restoration Advisory Board. We welcome everyone here tonight: members of the Presidio Trust, the National Park Service, regulatory agencies, and particularly any members of the public who are out tonight to join us. Thank you for coming out and even prospective candidates for the RAB membership, we thank you as well for coming out tonight.

Does everyone have an agenda? If you don't there are agendas in the back of the room. Are there any updates, changes, or modifications to tonight's agenda? I see none, moving ahead. For committee reports we go over to Mark.

MR. YOUNGKIN: Good evening. We had our regular fourth Tuesday of the month planning committee meeting on July 25th, and one of the topics we covered was membership. We had a review of outstanding member applications. There were two prospective members at the meeting, Sharon Williams and Dennis Downing. And most of the meeting we talked about the metals in background issues. Bruce Castle of EKI was present and gave us a demonstration and discussion on the issue of how to pick

metals and background and how the Army did it and how the Trust is doing a slightly different process.

We also had a project update from Chris Nelson. He talked about ongoing projects at the Presidio and then we had a discussion of miscellaneous issues that had accumulated and these included ARARs, responsiveness summary, and a whole list of things, sort of miscellaneous things. And we briefly talked about the upcoming bimonthly project manager's meeting, which I attended on August 1st.

And so our next scheduled meeting is on the fourth Tuesday of the month and we hope to see everybody there. Thank you.

MR. KERN: Thank you. Any questions for Mark?

MS. MONAGHAN: I was going to introduce the people that are here, if I could, with the membership committee? Luke Ingcapool, Glori Yaro, Dennis Downing, and William Jackson are here tonight. If you want to identify yourself at the break we'll get to know everybody.

MR. KERN: Did you ask them to stand up?

MS. MONAGHAN: At the break I was going to.

MR. KERN: Okay, very good. Well, thank you everybody.

We're on to reports and discussions and that would be Chris for the status update.

MR. NELSON: Thank you, Doug. Hopefully by the end of the evening you won't be tired of hearing my voice. We have quite a bit of information to convey. This evening we are going to talk about the Main Installation Feasibility Study updates, PHSH, the ROD amendment, sampling activities and results in June, and we'll have some preliminary findings to discuss. And we're also going to talk about the Main Installation sampling activities that occurred in the month of July. And we have some findings and preliminary results to share. And I am going to mention the groundwater monitoring program. I know that's fallen off the agenda in recent months, but it is back on the front burner now. And we will also be talking about some additional projects that we're going to be working on, which are actually appropriate to discuss in light of Doug's email that recently went out to the RAB asking about some updates on some items. So I will be touching on those this evening.

The Main Installation Feasibility Study is really rolling along nicely now with the completion of the chemical database that we've compiled. We've been entering the data that's been collected in the field. We've been entering the data from the remedial investigations that the

Army did, and a number of investigations we did. We're trying to compile as much analytical data as we can in order to identify a potential chemical to check - screen against background metals and cleanup numbers.

We're developing -- we will be able to identify chemicals and select remedies for cleanup. That was presented at the RAB meeting in the month of June. And then in the month of July we discussed background metals. We anticipate getting a report, an internal draft report from EKI this week with the background numbers and methodology that was used to develop those numbers.

So as we mentioned in the past, when those reports are available for review we will issue them and people can take a look at them. And I know some RAB members have requested possibly talking to EKI, the scientist who did the screening and did the selection, and we want to make sure that's available to whoever is interested.

So, when the document goes out I will be asking around as to who wants to talk to Bruce Castle about that because I know there are some concerns. As I've mentioned in the past we are also in the process of developing cleanup levels at this time. The status of that is the human health numbers that were proposed were presented in a meeting in May, and as it stands right now those will be the numbers we propose in the document that comes out in a

few more weeks.

We've been presenting over the past few meetings the ecological cleanup level development approach and we're currently awaiting comments from DTSC and scientists from Southern California. We may also get input from the EPA on that and we intend to meet and discuss the issues as they arise. When we get the comments that will also be -- those numbers will be released in a document as a standalone appendix to the FS.

Similarly to the human health cleanup numbers and background numbers, those numbers will be interim and used in the evaluations of alternatives and we will discuss which numbers will apply at these sites with the RAB, when we find out if they are accepted by the public.

We've also had some technical meetings. If you recall from the FS work plan there were four different meetings that were scheduled, three of which we've had. These were regarding human health cleanup, eco cleanup numbers, and the hexavalent chromium issue as a background metal. And the last one is looking at ARARs and landfill regulations that apply to the Main Installation sites.

Because of the position we're in right now in the Feasibility Study we're not ready to meet with the regulatory agencies to discuss the ARARs, but that will be coming up within the next month to six weeks as we move

forward with talking about remedies.

I'm going to move on and will discuss the fieldwork that took place last month. It was quite an exciting couple of weeks out in the field. We got a lot of work done, and it's great to see the data come in now and see what's being found at these sites and correlating what we saw visually to what we saw in the chemical data.

We began the sampling effort on the 10th initially by installing monitoring wells at a number of sites that we completed within two weeks. Just last week EKI brought a subcontractor out and surveyed in the vertical and horizontal points of the sampling locations. These are the trench boundaries, sediment sampling locations, monitoring wells, and soil borings. We have one last task that will be completed. It doesn't entail gathering any analytical data. I will discuss that in a little bit.

The data has been streaming in, and as I get it I take a look at it. And I'm going to be presenting some of it tonight, and when we get a complete report of all the data it's being transmitted to EKI electronically and put in the database and incorporated into the chemical screening process. Once we've taken a look more carefully at the data we'll be able to identify potential chemicals of concern at the site. This is something that has been discussed in the past. This will basically create the

chemicals we are concerned about that we need to consider whether or not they are exceeding background numbers for metals or exceeding cleanup numbers.

So once we can identify the potential chemicals of concern through the screening process we look and we compare them to the cleanup numbers that we're proposing. And that takes us to the next crucial step, which is looking at alternatives for remedies at the sites. There will be a brief discussion internally and, if necessary, a committee meeting screening through technologies that might be applicable to dealing with some of these sites where COCs exist. And then from there, when we find the technologies that are appropriate for cleanup, we'll start talking about evaluating alternatives.

So, we're getting down to the funnel approach of the FS. We are starting to select remedies and I wanted to let people know we're moving towards that very quickly here. I know a lot of people are interested in talking about it, as are we. I want to thank you for your patience as we move forward to that next step.

I'm going to shift gears for a second. I will present an extensive review of what was begun in the field in a moment, but I want to talk about some of the additional projects on the agenda. We finally released a request for proposals for the park-wide groundwater

monitoring program thanks to the hard work of our contracting officer and legal department. We had a site walk last week with potential contractors who were interested. And we took them to some of the more difficult to access well locations to help them figure out access issues and some considerations for their proposal.

We're moving on a pretty fast track. We expect to have the proposals back, I believe, by the 18th of August. And we're hoping to initiate the park-wide program monitoring all the wells in October. I've received some comments and some questions in the past from RAB members and I welcome any input you have on this process.

I know that we're handing out the reports as they come in, and for the past several quarters only on a few select sites. And now we'll be able to resume what the Army was doing before and look at all the sites.

Also I'd like to announce, as I have in the past been project manager for this, we have a new project manager, Jennifer Coats. She's not here this evening and she's managing the Public Health Service Hospital ROD Amendment Project as well. And you'll be seeing her at future meetings.

Additional projects that we're working on, as I mentioned, the Public Health Service Hospital ROD amendment. Some of the ongoing tasks include looking at

the data that's come in recently from the June sampling event and analyzing and identifying the potential chemicals of concern much like the Feasibility Study. We're going to be moving quickly here towards analyzing the remedial alternatives for the sites. And, again, much like the Feasibility Study I'm encouraging, if it's necessary, to have additional meetings to talk about some of these remedies. You're certainly welcome. The initiation of that will be much like we had done a few months back with the working groups and main installation sites.

In addition to moving forward with amending the ROD, we're proceeding with looking at applying a remedial design to the selected remedy. Now it hasn't been selected but we're hoping to move this project forward on a fast track. And we've recently had a site walk with some of our consultants both working on the ROD amendment and working on the landfill design.

We had a very productive meeting today. We talked about Landfill 8 and 10, and discussed issues related to the engineering factors, draining, slope stability, making sites available for restoration of natural habitats such as plants. And we'll be looking forward to factoring those items into the task orders that we're going to issue to get the design underway.

We're also going to be moving forward a little bit

on the schedule. We're looking at initiating some revisions to corrective action plans that the Army had left uncompleted or unsent by the regulatory agencies. Building 1065, which is near the main 60-acre complex, which is actually on the schedule for September. And then Building 207/231, which is closer to the intersection of Gorgas and Halleck Streets -- and that one was on the schedule for early next year. We're going to try to move that up and get moving on that.

So ideally this calendar year we will begin discussions on the progress for issuing task orders to consultants and getting any predesign investigation work out of the way. We anticipate that, for those of you who are familiar with the Building 637 process that took place last summer, we're going to go ahead and do the same process with the working group meetings. And we will discuss the universal alternatives and detailed analysis and the like for those sites.

Commissary cleanup -- you're not going to have George here tonight to go over the sampling. I can tell you that we continue to monitor the seeps and they continue to be below the action levels for the saltwater action level for the marsh. The removal action is going to be occurring later on this fall possibly October, November and we are currently moving forward with getting a consultant

on board to prepare plans and specifications to get a construction contractor out to the excavation work.

We are also going to be moving forward later this month with sampling at Crissy Field Rifle Institution skeet range, which is not far from the Coast Guard station there. And that's scheduled to begin in about two weeks. I believe we have a field sampling plan that's been approved by the regulatory agency followed possibly, not too far off in the distant future, by the removal of the skeet as we find what's there from the characterization and sampling.

I'm going to move on now with the sampling activities that took place in the last few months. Any questions about the last non Main Installation sampling issues?

MR. MCKLERoy: Is the skeet offshore or is it all onshore sampling?

MR. NELSON: It depends how you define it. In memorandums of agreement we're doing the onshore portion. The offshore portion is below the water line and that's the responsibility of the Army. So I believe Henry has been working with the Army to try and get that underway as well.

MR. CHUI: Yes. We sent out the letter and we haven't received a response yet from the Army. I'm not sure when we will.

MR. MCKLERoy: So it may be in two parts?

MR. NELSON: I can't speak for the Army.

The Army is going to be doing the offshore section. I can only say what we're going to do. I don't know. Have you had any updates or spoken with anybody from the Army?

MS. REACKHOF: No.

MR. MCKLERoy: So the answer is you're doing onshore only?

MR. NELSON: Onshore.

MS. REACKHOF: He means the furthest that you go out, where someone could be on the beach area and walking and encounter the potential skeet is to what level we're doing it. So it's not probably what you would think of as onshore.

MR. NELSON: It's only onshore a couple times a year. That portion is really submerged most times except at low tide. We are doing the sampling at the low tides.

MR. O'HARA: What are you looking for?

MR. NELSON: The skeet fragments are poly-aromatic-hydrocarbons, PAHs. We'll be sampling the sandy materials. I'm not quite familiar with the technology they are using. I believe it's a direct push rig of some sort. So they'll push the casing into the ground and take a sample of the core and submit it. And if

there is skeet fragments in it the sample should reveal whether or not the PAHs are there. And then once we have that data we'll be able to characterize potentially a volume of excavation where we can remove any visible skeet from the onshore area.

MR. O'HARA: So you're looking more for onshore skeet than you are offshore?

MR. NELSON: That's my understanding that we are sampling for lead.

MR. ULLENSVANG: They were looking for lead and the levels they found were below the action level. So the Trust has worked with the State to determine that for the beach area they don't need to look for lead. The presumption is it's out in the bay or somewhere else, and it will be screening those samples looking for visible skeet. If they see visible shot then it would be a notable thing as well.

MR. O'HARA: I was really -- I suppose when you are talking about skeet you're talking about a material that is --

MR. NELSON: It's a disk.

MR. O'HARA: I missed an awful lot of them in my life, but my question is because of the -- not of the way the disk is manufactured -- is it degradable or is it inert?

MR. ULLENSVANG: Skeet manufacturing has changed so modern day skeet is different than the skeet that is out at Crissy Field. But the binder or tar product that was used to help mold it, that product contains the chemical that is of concern here.

MR. O'HARA: That chemical is?

MR. ULLENSVANG: PAH is the most notable, benzene.

MR. NELSON: Very large long chain hydrocarbons molecules are generally stable and don't break down readily but tend to have concerns. Does that answer your question?

MR. O'HARA: Yes.

MR. KERN: Chris, I had a question on the item of remedial design for Landfills 8 and 10. You mentioned you had a site walk. Can you talk a little bit more about what's going on with that since it is a remedial design, but you haven't decided on the alternative? What are you designing it on?

MR. NELSON: What we're doing right now is looking conceptually at it, what is the universe of design criteria, and what are the alternatives we might move forward with, and if those were the alternatives how would we design it. And so I use the term "design" rather loosely because no design activities have been initiated.

Really what we intend to do as part of this design task is to first identify any data gaps that exist and any field activities, surveying some, looking at drainage issues, looking at slope stability, technical issues.

And some of the issues that were coming up is how much of the parking lot is the Trust willing to sacrifice in order to maintain this parking lot here and keep the fill in place. If we were to drill piles in or buttress the slope could we lessen the slope a little bit? Maybe we could make it less steep, so there would be less erosion and stability issues.

So there's a variety of issues that have been discussed. And so the short answer is we're proceeding at risk, but not designing anything without input from the public. And we are trying to get this on a parallel track. We're trying to facilitate the reuse of the Public Health Hospital sites. In order to do so we've placed the ROD amendment sites on a fast track. We're coordinating very carefully. We're not going to move forward with something we don't think will be accepted. That is where it stands.

MR. KERN: For Landfill 10 and 8, for those of you who don't know, Landfill 8 is an area where there is some plan issues. Landfill 10 is near Lobos Creek. So there are a number of issues that the public has expressed during working group meetings where we had some discussion

on what would it look like and what would be done. So I would just encourage that if there are ideas being kicked around, those kinds of discussions would be interesting to us to also kick around because I know people were -- everybody is a little perplexed about what could possibly be done and what would it look like.

MR. NELSON: Just to update what's going on out there, the plan for both 8 and 10 is to make the sites available not only as remedy sites that are cleaned up to protect human health and the environment, but also being slated for native plant restoration areas. So just to give a preview is that the resources we see in the Lobos Creek Valley will transition up that hillside of Landfill 10. So that is an extension of that community. The upper park is really sort up in the air right now. This is an ideal situation. It really remains to be seen how steep that slope will be in the end.

And as far as Landfill 8 goes there were quite a few discussion issues that came up today related to the upgradient Nike Swale area and the presence of some sensitive plants on the landfill itself and animal issues. So I can assure you we were discussing all of those things in relation to mitigation measures during construction to make sure not only are we improving the landfill to facilitate more resources, but also going to do as much as

we could to protect what we could in the process.

So conceptually there are no real designs yet, but I certainly encourage the involvement of RAB members who are interested in those sites. Any more questions before I move on and talk about the Public Services Health Hospital?

MR. MCKLEROY: You said you were not having discussions with the regulators with respect to the ARARs as it seems that you are developing new numbers. And is that the reason why you haven't been discussing that with them, or what is the nature of those discussions? And why are you holding them in advance?

MR. NELSON: We're holding them in advance because we haven't proposed remedies yet and the ARARs will apply to the remedies until we can form a selection of remedies that might apply. We would be getting ahead of ourselves to discuss which rules and regulations and which statutes apply to that.

MS. SHLEZ: One other thing I would like to add to that is in the response to the email I sent out addressing some of the issues Doug had brought up. I also talked to Henry Chui of DTSC and he wanted me to clarify on the point of the ARARs because that was one of the issues that Doug brought up Henry is working within DTSC to solicit some possible regulations that we might be

encountering in regards to landfills.

So there is some development of ARARs going on. Right now we're not ready to sit down and have a whole list of what's going to be applicable or not. It is just the meeting we're holding off on, but the development of the ARARs, looking at the possible regulations that might be applying, is happening as we speak.

MR. MCKLEROY: Thank you.

MR. NELSON: So moving on, we conducted some sampling activities at three of the Public Health Service Hospital sites in June. There was some trenching and soil sampling and monitoring, and well installation at Graded Area 9. There was some surface water sampling at Mountain Lake and surface water and sediment samples from Lobos Creek.

First I'm going to talk about the Mountain Lake sampling. No, I'm not. Okay, I know why. Sorry about that. I was getting ahead of myself. The Trust excavated 6 trenches at Graded Area 9. The idea was to try and characterize whether or not there were potential chemicals of concern there as had been indicated in the past and suspected from past investigations. Largely what we found in these trenches was soil materials. There was very little debris found in the 6 locations.

I think there was a small piece of brick and small

piece of metal cable, no containers of any kind, no container lids, no tanks, no stained soil or odorous materials of any kind. These are just pictures. It is showing the cross sections of the trenches and it was primarily sand with some silty sands. This just shows some excavated material from the trench and it clearly indicates that the sand was the predominant material in the trenches.

This is representative of EKI collecting a shallow soil sample from a trench. Following collection of soil samples we backfilled the trenches and installed 4 monitoring wells. What was found there was there was no groundwater present in any of the locations where the wells were drilled. However, we completed them with the hopes that if there was groundwater we would find it, perhaps in the spring after the rains.

Most of these wells were completed either in the weathered Serpentinite or in the contact between the Colma formation and Serpentinite. And adjacent to the Landfill 8 site these are the bore holes. No debris was encountered in this activity. So summing it up, two of the trenches that's were dug -- if you can picture Graded Area 9 in your head, Battery Caulfield Road comes down off of Washington Boulevard and bisects an area that separates Baker Beach.

The housing from the Public Health Service Hospital and the Nike facility went over Battery Road and two

trenches that were dug in that area did not encounter any debris. I'm going to have to turn my head, I apologize.

So as you can see from the photographs -- and Mr. Kern was there to confirm it, it was primarily soil in the trenches and very little debris was found. And the soil samples that were collected we didn't detect any PCBs, PAHs, or pesticides and metals detected were within the normal ranges for the Presidio. The next slide shows the sample locations.

The clear trenches are the ones that EKI excavated and sampled at these locations. And this just shows -- I know it's hard to read -- but it shows the samples were collected at 1, 6 and a half, 4 and a half, 1, 2, 2 and a half, etc. And all of these depths indicate non detect of chemicals we looked for. It also shows previously detected chemicals in the existing trenches that were dug by the Army in these darkened rectangles. So that's a summary of Graded Area 9.

MR. O'HARA: Did you draw any conclusions as a result of your testing? What conclusions have you drawn?

MR. NELSON: Preliminarily, the conclusion we would like to draw is it's not as much of a site as we thought it might be. Certainly with little evidence of debris in 6 trenches and 4 borings it's looking like it might be imported soil that was graded to create a playing

field by the Army. We're looking at the first step. When you do this data collection it is to compare it to existing data.

Also there's the screening, which in this case -- which is not going to come up with anything new. And then we're going to have to move forward with knowing that there's no COCs at the site that we can find. And so we'll consider that when we start talking about remedy selection for the site.

MR. O'HARA: Are your findings consistent with those of the Army?

MR. NELSON: I believe historically the Army had found some isolated pits of pesticides. I can't remember exactly what the details were.

MR. ULLENSVANG: It was a poorly characterized site. There was some indication there might have been pesticide there.

MR. NELSON: You have .3005 milligrams/kilogram of DDT. There was .41 of Flurathene, which is a semi-volatile organic compound at .38. That's hard to read, I apologize. And then we did find some -- in the more recent one we did find some of the things. We found in the past the confounding issues with chemicals like this.

And I think Bruce Castle emphasized this quite a

bit, in the laboratory and in sampling environment as well these types of compounds like Flurathene and Pyrene are very prevalent in plastics, which is everywhere in the lab and is frequently used in sampling equipment. So it's hard to tell whether or not that's real or something that was residual from sampling or from analysis. I have not -- in my mind I do not know what the cleanup numbers are for those compounds, but my recollection from talking to project manager is that they are below the action level. Do you happen to recall?

MR. ULLENSVANG: No.

MR. NELSON: Are there any specific sites -- any questions about those findings at this point?

MS. WRIGHT: Chris, is it possible to get a copy of what you have up there at the next committee meeting?

MR. NELSON: Yes, I haven't determined what we're going to be talking about at the next committee meeting. We can provide maps. I'm going to be out of town for the next week, so we'll make sure anything that becomes an action item we'll pass on. Okay, moving on.

Samples were also collected at Lobos Creek. This slide shows the nature of the water environment. In the creek bed you have plants and logs and wood and this rusty orange material that seems to be some sort of algae is

pretty prevalent throughout the entire creek area.

We took samples of both water and the sediments from the creek and we just wanted to show this to show that there were sandy materials in sediments, but considerable finds as well. And we tried to capture the finds to identify whether there was any organic content. This slide shows -- the clear diamonds are the surface water samples and the -- I'm sorry not diamonds they are triangles -- and the clear squares are the sediment samples that were collected. And this shows the results at these different locations. The darkened squares and darkened triangles are locations that had been previously collected by the Army.

So, as you can see from this figure, there was no hexavalent chromium in any of the locations and arsenic was either not detect or quite low, well below the drinking water standard. And in the sediments we weren't finding anything remarkable. They were either non detect or something along the lines we would expect to see in terms of metals.

So that pretty much summarizes what I just said. I'm going to move forward with Mountain Lake, if anyone doesn't have any questions about Lobos Creek. Mark, did you want to say a few words about your findings from today?

MR. YOUNGKIN: Jennifer Coats and I walked the trail and the red flock is either a bacteria or algae.

No one has taken a sample. It may be a naturally occurring phenomenon due to the anoxic low-oxygen type of water there and high mineral iron and magnesium. So we went up and observed that it's pretty jungle-like this time of year. It is interesting that this red flock is all across the Creek in some areas very thick. It is pretty interesting right now.

So Jennifer did resample one sediment sample up there. I think she wanted to rerun the lead, one sample. So we just so sort of outlined to her the whole setup of the upper creek there, the springs, and what we call bacteria direction and things like that. We will see where that goes.

MR. KERN: There were some arsenic detections that appeared on the screen and that was one of the things that was a sort of a left over thing from the Army's sampling that --

MR. NELSON: This one here?

MR. KERN: Well, there was one that was outstanding and so do you think you found additional arsenic or additive, or what's the conditional reading of this? I'm still not quite figuring what the triangles versus the squares are. I'm not remembering which is water and sediment.

MR. NELSON: Triangles, open triangles are

recent and black ones are Army. And the closed squares are Army and the open squares are Trust sediment.

MR. O'HARA: The numbers that appear up there that are less, are those threshold numbers?

MR. NELSON: What those are are detection limits set in the laboratory for trying to find that substance. If it says, "less," then it's not known to be present, and anything above that level. So basically it is not detected and if it's present it's less than what the instrument could detect it at.

MR. O'HARA: And those settings are arbitrary?

MR. NELSON: They are not based on drinking water standards. It's based on the instrument's ability to detect something like that.

MR. O'HARA: In two samples there, in the lower left-hand corner, we have arsenic at less than 2.35 and next to it we have arsenic at 1.7, which from a layman's point of view is it can't detect it at 2.35, but can detect it at 1.7?

MR. ULLENSVANG: One thing to point out is one of those is in water and one is in sediment. The units are different so you can't compare the numbers like that.

MR. NELSON: Soil and water are looked at very differently by the instruments because there's

different interferences. For instance, with soil you may have a lot of other metals present naturally that could mask the presence of something like arsenic.

MR. O'HARA: Thank you.

MR. NELSON: To answer your question I think I'm going to have to get back to you.

MR. KERN: I don't have the numbers in my head either what the cleanup numbers, or the screening numbers for sediment or water is. I can't really tell from looking at that what it means.

MR. NELSON: We're really taking the first steps at analyzing this data. As we move forward with the chemical screening and comparing the cleanup numbers we're establishing to these it may shed more light on it. So I would promise you that by the committee meeting in two weeks we'll have an answer for you. Moving on to Mountain Lake.

The objectives of the sampling were to collect storm water run off from Highway 101 by the side of the lake and adjacent to the golf course to make the determination whether or not run off was impacting the lake. The uniform objective was not accomplished because of the rainy events. When our sampling personnel went out to collect the sample there was not enough run off to collect in the areas we thought we would find it.

So that answer for that question remains unanswered at this time. And we will be able to follow through with that next rainy season, going out at some of the events early on in the season. We also collected 3 surface water samples and they were analyzed for lead cyanide and pesticides.

We had a Trust sample here, here, and here. As you can see they were taken roughly along the banks of the lake and the shaded rectangles show that there was no heptachlor or cyanide detected in those samples. These lighter rectangles and other data points are from previous samples by the Army. Any questions on that?

So moving forward with the Public Health Service Hospital sites. Similar to what we're doing with the Main Installation, we're evaluating this data, screening it using a chemical database. We're doing the screening. We're looking at comparison cleanup levels and identifying chemicals of concern based on these sampling activities. Once we've had a chance to look at this data we'll be able to compare it to cleanup remedies and how they'll be applied. And this report of the field activities that I've just summarized here will be included in the ROD amendment document.

That sums up the Public Health Service Hospital activities. If there aren't any more questions I will move

on with the Feasibility Study Main Installation sites.

Okay.

As I mentioned before we had about a two week field program, and there's one remaining task which is to drill an additional well at Landfill 4 and install 3 soil borings in the upper part of Baker Beach Disturbed Area 3. We had some access issues along Lincoln Boulevard with native plants and we're going to be getting out there in a couple weeks to look at the soil and install an additional well for Landfill 4.

As I mentioned the data is coming in. I've been looking at it and I've been making sure EKI gets it. They are getting it electronically. They were putting it in the database and I will begin the process of screening it to summarize what we did as proposed in the field sample plan.

We installed 4 monitoring wells at fill site 6, which is the area over near Letterman Hospital. We obtained Halleck Street and roughly the center. We also installed 3 new monitoring wells at Battery Howe Wagner. Two of them were upgradient. One was down gradient, sort of in the middle of the fill area, but downgradient of a suspected source of carbon-tetra-chloride.

We intend to install 2 wells at Landfill 4. We have installed wells at Landfill 5. We collected soil samples from Baker Beach Disturbed Areas 3 and 4, and

collected sediment and a water sample from Nike Swale.

There was only one area where water was present. There was the seep, the famous seep at Battery Howe Wagner, which is just across the road from the battery where we collected a water sample. And we collected water samples from all the new wells that had water in them.

Moving on with the nuts and bolts of what we did. We evaluated 4 trenches at Fill Site 1, which is up in the east housing area at the top of, I believe, it's Portola. This was the first trench that we dug and it was -- you'll see the location of it in a few slides. Here we found a Serpentinite layer and we found a lot of sand throughout this. This was a trench that had very little debris. I believe we found a small piece of brick and a piece of metal cable.

The next slide shows the location of this trench. This is Building 767, which is the last building on the street there as you get up towards the area just across from Paul Goode. This shows the orientation of the trench in an east/west direction. And we were able to dig it on the edge of a point where the topography drops off. The reason we did that was the suspicion was that the fill extends and had potential debris. We wanted to be able to look into the potential area where filling had occurred to determine whether or not there was any debris extending

towards that house.

I think you can see -- we're happy to see there's no garbage under that house and we made a conclusion that it's not underneath the house either. This is a really good shot of that same pit. The first is of the pit we dug. It shows a lot of sand, some silty sand where you see evidence of the Serpentinite layer there. It's possible that the Serpentinite layer was placed. It was very weathered and didn't appear to be consistent with the depth.

We were finding it in other locations the suspicion is this area was filled with soil material possibly as a cover as the original part of the landfill. This was the next trench we dug, essentially laterally similar to the first, just a little bit to the west. Also in that line with the building is this one. It had even more sands and silty sand as we see here. There was no evidence of debris whatsoever in this pit.

This shows the orientation. This one was in the opposite direction from the other one. That's the same building you see in the other slides. We next moved over to the edge of the fill area where there's a row of eucalyptus trees. You would be heading towards the street if you walked down the hill. This is really the first pit where we had any debris materials at all. In this pit we

found some asphaltic material. We found some glass. You can see this gravelly layer of fill material and brick. This was an asphaltic material that was unearthed. And this shows rocks, asphalt, and metal in the trench. This is where we started to see evidence of filling.

The interesting thing was as you looked at the fill as it was excavated, sloped off towards the end of the hill. Obviously when they were filling they were pushing things over the hill. This was the last trench we dug. It was over towards Julius Kahn playground. We got into some of the chert material, reddish-brown rock that is prevalent at the surface.

That test pit really didn't have very much debris at all. I believe there were some pieces of wood and brick, but it was not comparable to test pit 102. Because we had some time on our hands and we were intrigued with this subsurface environment, we decided to scratch out an unplanned pit. We did collect samples. This was more of an observation. What it confirmed for us was if you were to look at the landfill, the other test pits were in this direction laterally and towards me, and the one with most fill would be over here, and the one with less would be to the west.

This appeared to be fill material, but no debris. It was primarily rocks, chert, some Serpentinite, and some

sand, but no evidence of any debris or landfill materials into vegetation, nothing they can biodegrade, garbage.

This is just another shot closer up. You can see chert material here. You can see gravelly material and see the sand that's in that pit only a couple feet, maybe 4 feet deep. We didn't take it to the full extent because we weren't going to try to characterize that location. So the findings, the data is still coming in. I will be presenting some of it tonight, but it's looking good like this landfill may not be as large as was estimated in the alternate remedial action document.

As you recall the Army had estimated a certain size and EKI went into the field and did some topographic comparison of historic maps and photos and overlaid what could be a worst case scenario, which included the extension of the fill around Building 767 or beneath it. And we're feeling good like it doesn't extend over there. It may be fill material that was imported, but there is no debris. I think you can safely say this site is probably half as large as was estimated in the document, which is good news because if there's clean soil there at the front end that soil can be used to regrade the site as whatever is there is excavated.

And finally there was really only debris in two of the pits. And one pit stood out as the worst. I think if

we were to dig more pits on the northern end we would find a more consistent direction of waste. We did have some hits of diesel in that one test pit. The worst one is 102. That could have been from the asphalt. There may have been some diesel contaminated soil placed there at one time. Lead ranged generally from 2.3 to 210 milligrams per kilogram. And then with the other metals, considering the materials we were sampling is, in which is a variety of different soil types nothing was terribly remarkable about nickel or chrome. There was no VOC or SVOC found, no diesel, and no pesticides in 3 of the pits.

However, the pit that I mentioned before, 102, that had the most debris, did have some Dieldrin. I'm going to ask if there's any questions about fill site 1 before I move on. Are you people happy that the fill site is smaller than it was supposed to be? Okay.

The next day we moved on to Landfill 4, which is up in the area near Fort Scott. We dug a number of test pits there and found some interesting things. This one will make you dizzy. Don't look at it too long. You can see some debris in here, plastic, some wood. This was pretty much the predominant thing we found when we excavated test pits up here. And I think Doug can confirm that. He missed the worst one.

MR. KERN: I understand I missed the mother

load of weird looking materials.

MR. NELSON: There were 4 test pits planned for this site similar to Fill Site 1 and what we found was primarily there was fill or debris in about 3 of the test pits. The rest of the test pits -- well, actually more than 4 -- we planned to do 4. We did more like 6 because we were scratching around what appeared to be the center of the fill and we were finding nothing but sand so we would move a little north and try to find the edge of where debris was and there was nothing and we moved west and got more into it. I'll talk about what that means in my mind in a few minutes.

This is a typical one that had nothing in it. You can see what we had to do was scrape away the thin layer of cape ivy to get to the actual soil. We dug down and found sand. There was no debris whatsoever in this test pit. This was one of the worst test pits we found in terms of the content or percentage of debris in the fill. There was a lot of concrete, a lot of metal, some bricks, some garbage-type materials, nothing really that was breaking down a lot, plastic, things like that.

This shows a shot looking directly into that same test pit where you saw the spoils. There you can see the concrete, the brick at the top there, wood pieces, and I think that's plastic on the left. This is another shot of

the debris from that same test pit. Here you see big pieces of concrete, a lot of construction debris, not a lot of garbage. We were quite surprised to not find garbage in these test pits we dug.

This is 104. I apologize for not having maps if you can refer back to the Field Sampling Plan, one that was supposed to identify the northern edge of the fill, this is one where we moved towards it. This was an additional pit that hadn't been planned. As we scraped away where we found nothing but sand we hit what appeared to be the northern edge of the fill. You can see this is more concrete and asphalt in this one and there were some hints of chemicals that showed up in this pit.

This is that same pit you're looking in. You can see Serpentinite. It's hard to make out what this material is. There's some chert here. A lot of the spoils were off to the side, bricks, and concrete, metal, and wood.

And then the very last pit we dug was probably the worst findings in terms of visual observation of the day. We focused this one on where the dead eucalyptus trees are in the center of the landfills that mysteriously are not living. It takes a lot to kill a eucalyptus tree. So I don't know what's there. We started encountering wood and this very bizarre-looking, gray, clayish material. That layer right there seems to be mixed with Serpentinite, but

it had a very unusual appearance.

Beneath this layer was a layer of wood, which was not lumber. They were actually logs that had a black coating on them. And beneath that was a layer of the native sand that was impacted by whatever was above it. It did have an odor, but it didn't read any organic vapor reading on any of the monitors. So we did collect a sample of this and submitted it. We also tested the pH in the field, although not having anything to compare it to -- it did come up near a 7 or 8, I believe.

So the observations from this landfill are that the fill really appears to be more isolated in the western area. If you look at the maps that EKI put together for the alternate remedial actions document it was pretty unclear. I think when they did the site walk comparing the topography and the map it wasn't clear to them whether it went to the eastern side. I feel from looking at the past borings, and past test pits, and the test pits we dug it may very well be half as big as it was estimated to be in the alternate remedy document.

When we walked along what appeared to be the apparent boundary, we dug in some places and we confirmed there's a significant topographic drop off on the northern end. When we dug there we found debris. I think it's safe to say there's not a considerable debris beyond that area.

Again we found very little garbage in the test pits. We found more like construction materials, some plastic, metal, wood, bricks, etc. We didn't see anything that really indicated heavy amounts of chemical impact of wastes. That gray clay was quite curious and we're currently looking at the results right now to determine what this might be.

I have gotten some preliminary analytical results. We do find some diesel in a variety of the locations, higher as you can see, than what was found at Fill Site 1. We didn't find any volatile organic compounds, no gasoline. And we did find some scattered hits of pesticides in the parts per billion range. These could be from chemically impacted soil. It's not clear. It could be residual pesticides that were used on the site. DDT was used out here for months and I'm sure in any ponded areas that existed it's quite possible they were applied.

It's not clear where that is from, but it could be from the impacted soil. And then in the numbers next to these LF4TP104-12, this actual pit that was on the northern end of the landfill, we took the soil sample from beneath where the fill was. We got down to the area that appeared to be the bottom of the landfill and did find impacts from some chemicals, primarily pesticides, and a little bit of diesel.

The only thing that we have so far to report on in that one test pit that had the gray clay is DDT. So it remains to be seen.

MR. KERN: I think that, at least my recollection -- I know that the DEH, the people that were head of the Department of Engineering and the housing had some pesticide facilities and issues like that. And there was some discussion they might be putting their waste in Landfill 4. So that was a possible source.

MR. NELSON: These levels are not consistent with product. It's product application. I'm not going to rule it out, but my guess is because we found it in parts per billion when you see DDT in the environment if it was product dumped there we would see a lens of it or pretty strong additive in the soil. So it's possible that containers were dumped there. I appreciate your input on that. Any questions?

MR. MCKLEROY: In both of these landfills it seems that the debris is pushed to the perimeter generally, and what ends up on top is the chert and something solid so you can operate heavy equipment.

MR. NELSON: In some of the locations we were finding road-based material and others we were finding sand. I think there were estimates that the sand cover at the site was 2 feet or something.

MR. ULLENSVANG: The Army reported 3 feet of sand fill on top.

MR. NELSON: It was 6 inches at best. Maybe they meant to put it on because we found a lot of sand out there, but it doesn't look like it got pushed on to the landfill. Any more questions? You guys getting tired of hearing my voice yet? Okay.

As I mentioned earlier we installed monitoring wells and I will just briefly go over the objectives. Fill Site 6, if you recall from earlier presentations, when the Army did the remedial investigations in Fill Site 6 and other installation sites they did a poor job of characterizing the groundwater at that site. They advanced the direct push rate and took an unfiltered water sample. And our belief is they didn't adequately characterize the groundwater. So we put 4 wells in there and we looked for dissolved metals among other things.

We also put in wells downgradient of Fill Site 5. We want to determine whether or not Fill Site 5 just above Lincoln Boulevard is impacting the groundwater in that area. And actually we were happy to find there is groundwater there. And the Army installed some wells in the early 90's. They didn't find any, or maybe they didn't try hard enough. We also wanted to look at the potential fault trace that runs through the site. And it appeared to

have some form of influence based on the wells that are 30 or 40 feet apart that are on either side of that fault.

Based on some comments by the RAB and the agencies we hadn't originally planned to do further characterization of Landfill 4, but we did listen to their comments and we installed monitoring wells downgradient. However, we found that there was no groundwater at this site at this time. We checked the existing well that's been there for a number of years. There was no water in it or the well we put in and completed. The well had no water and we are going to find the same thing when we go out at the end of the month and install the last well, but water or not we'll complete it. So we will have 3 points downgradient of the landfill.

At Battery Howe Wagner, as we had planned, we put in 3 wells. The curious thing about that site is whether or not carbon tetrachloride, which is found at very low levels downgradient of the fill level of the Battery is coming from the actual fill in the Battery or is present from an upgradient source. I think you recall some discussions of Building 1233 where the Army had stored carbon tetrachloride. So we were able to put in some wells to determine that.

This slide doesn't do justice to the greenness of the Serpentinite here, but primarily what we drilled there through, with the exception of 6 inches on Lincoln

Boulevard, is this weathered Serpentinite. It is fascinating. It looks like a rock, but you can break it apart with your hands, but it transmits water. This shows the location of the two wells. There was one uphill from the fault running basically down through here. The other one is off to the left in the south.

This is one of the wells that was put in in response to comments by the RAB and the DTSC. This area that you're seeing here and in the foreground, a mound is clearly filled in by Halleck. There was no debris encountered when we drilled the well, but we wanted to know whether it extended west towards Halleck Street.

So you can see from my arrows, your orientation, that's Building 3. Halleck Street runs this way. There's a mound this way with a bunch of trees this way. We also put in a well adjacent to Building 1027 between 1027 and 1028 in an area that had not been explored by the Army. So, we're characterizing that site.

This shows the location of one of the wells at Battery Howe Wagner. We're in the fill area here on top of the Battery. The Battery is off to the right. This is Building 1233 and there's another well you can't see just on the other side of this bramble or bushes.

This shows the material in the core from the wells at Battery Howe Wagner. Clearly we had some sandy material

and some fill and then grading into the Serpentinite. And in general at this site we screened the wells and the Serpentinite near the contact of the Serpentinite in the core.

These are just some shots. It is showing the well installation process. This is a shot of the well at Landfill 4. As you can see this is the Fort Scott area. If you recall Kobbe Road is right along here.

So moving forward with what we found so far. The 4 wells at file site 6 have revealed no gasoline, no diesel, no PAHs, and no pesticides. The metal results showed a variety of hits. Some wells had no metals, some had barium, thallium, chromium, zinc, and selenium. All these levels are not alarming. They are pretty common. None of the chromium hits, for instance, are above the MCL 50 and certainly within the range of what we have seen here before.

So the preliminary results tell me there's not a huge impact in the groundwater at Fill Site 6. And all the other metals we looked for were not there. So it's nice to know that doing it the right way yields a slightly more positive result in thinking there is probably just building debris that hasn't contacted the groundwater.

We sampled 3 wells at file site 5. And we will put in a well upgradient. The Army had indicated there was no

groundwater in File Site 5. However, if you were to walk the site you would see a well was put in to investigate Building 1349 is drilled right near the fill area and it provided a good upgradient sample for this. We did not find diesel, gasoline, volatile organics, or pesticides in any of the wells, and no SVOCs.

When we looked at the wells we saw normal levels for metals and we also sampled for hexavalent chromium in the new wells and found either nothing or very low levels less than the part per million. Any questions about those two sites where we sampled the water for impacts?

MR. MCKLERoy: Which labs are you using for testing?

MR. NELSON: For this round of sampling we're using Curtis and Thompkins in Berkeley. They are a very reputable lab and we use them quite a bit. Any more questions?

MR. KERN: In the fill site 6 wells I noticed that you got one well that had no mounds and in some of the others are mixed together on the list. One of the issues we've been talking about, chromium for example, is closer to the bay and should be reduced down.

MR. NELSON: That's right.

MR. KERN: So that's kind of an interesting data point. It would be nice if at some point we could see

how this, and I'm assuming you will have a report to show us --

MR. NELSON: Yes, there will be a report of findings. We'll be able to do more of just a rough analysis of what is there I know that one of the field sampling plans is to try a correlation of the TPH levels and the dissolved levels. And from my perspective that hasn't been done yet, but it is interesting to see that there were no impacts from gasoline or diesel prevalent in those wells. So we'll be looking further at the Fill Site 6 data. I think it warrants a further look.

MS. SHLEZ: I'm going to apologize. I inadvertently left this slide off of the handout you have. So if anyone here wants a copy of this information please let me know and I'll be happy to send that to you. I apologize.

MR. NELSON: No, it's on there. Yes, it's on page 4. I'm going to move on with the last fieldwork that was done that I can reports on at this time. We had planned to collect soil samples at Baker Beach Disturbed Area 3 and 4. At this time we've taken the soil samples. The other goal of investigating Baker Beach Disturbed Area 3, was if you look at this trail here as it bisects this area, primarily the Army looked at a site to the west here.

This is Lincoln Boulevard here and Battery, Crosby

is down here. In this direction this area has not been characterized in the field sampling plan. We proposed to collect some soil samples from the fill material and drill some borings to try and identify the contact between the filled material that was placed there and the native material to also to try to determine whether or not there's any debris in those areas.

So we collected 3 soil samples and what we found was what's been placed there, it's reasonable to assume there have been some impacts, whether it's impacts that have occurred since the debris was placed there or whether it was in the field when they put it there. There are low levels of some organic, even pesticides chloradine, DDD, which is a product related to DDT. We didn't find VOCs or SVOCs. We did we find gasoline, however. There were some small amounts of diesel found in the low parts per million range.

So basically of the 3 samples there were no detections of pesticides in two of them and in one of the samples we found a variety of pesticides at a couple different levels. The different amounts depends -- and again, with this site the metals we were finding were nothing out of the ordinary. Moving on to Baker Beach Disturbed Area 4.

MS. WRIGHT: Could you explain -- I'm not

quite sure by what you mean by, "nothing out of the ordinary." Do you mean for that site?

MR. NELSON: For the Presidio.

MS. WRIGHT: In normal soil you mean or ordinary for a fill site?

MR. NELSON: No, basically for the most part what we were finding with a few exceptions at Landfill 1, we were finding the levels of metals were pretty similar to what we are finding in background or other impacted sites. We are not finding thousands of parts per million of anything. I think the highest was 210 parts per million.

MS. WRIGHT: So you're referring to the levels we're --

MR. NELSON: What I'm saying is it doesn't appear from the first look that the fill material has any metal impacts above what we would find as naturally occurring at the Presidio. This could be imported fill from offsite or imported from somewhere else on the Presidio. We are not clear on the source of it, but we're not finding high levels of lead, nickel, chromium, arsenic, or some of the other metals of concern.

MS. WRIGHT: Thank you.

MR. NELSON: Again not knowing what the pesticide application procedures were at the Presidio, looking at these levels some of these are present possibly

from legal pesticides. There's really no way to tell clearly. It doesn't appear that the soil came from a chemical grossly impacted with pesticides. A lot of these pesticides are pretty prevalent in the environment when you sample in areas and they are pretty persistent. So they stick around a long time. They don't break down very well.

Baker Beach Disturbed Area 4, which is down the road basically around the bend from Baker Beach Disturbed Area 3, we essentially took soil samples to bracket what the Army had collected before. And we sampled in 3 locations at 2 inches depth and again found metals within the normal or below normal ranges for the Presidio. And we found one hit of DDT. I don't know why I don't have the concentration on there, but it was found at 6 inches. I want to say somewhere around 8 parts per billion. I can't recall off the top of my head. I apologize for that. I had too many data points to enter.

I believe the DDT was found there in the past. Is that what was found there?

MR. ULLENSVANG: It was a pesticide.

MR. NELSON: I know those were the COC on the site previously. You know it's good to see there aren't high levels of lead. You might expect to see that on the side of the road in a urban area.

MR. KERN: Is this the sample point that's

in the half of Baker Beach where there were no sample points before, so the southern half. I think there were some pesticides.

MR. NELSON: I'm trying to orient myself. I believe what you have up here is Lincoln Boulevard and then there's a road that cuts off and goes down to Baker Beach. And so the samples were collected along this alignment parallel to the road in that area. It had not been characterized in the past.

MR. KERN: Do you know if the value is consistent with the other values at the site, or of the DDT?

MR. NELSON: My recollection of what was there -- I haven't had a chance to do a comparison -- is that it wasn't high. I don't believe it was high. I apologize for not having that on there. I'll get that information to you. I'm almost done.

So to conclude what I've mentioned this evening to sort of preliminary conclusions we have carefully mapped the data points. Certainly I'm able to recollect from being the field where these hits were found and I can make the correlation. If there was debris in a landfill pit it makes sense there might be some contamination. If there was only sand it makes sense there's nothing. That's pretty much what we're finding in general.

I'm making a leap of faith that Fill Site 1 and 4 are almost half as large as they were estimated to be in the alternate remedy action document. We did find groundwater upgradient that had not been accomplished by the Army and we did find it downgradient of Fill Site 5 that had not been found by the Army.

Valuable data groundwater at Landfill 4 continues to be extremely elusive. Groundwater occurrence is very limited and appears to be a very thin layer of sand. We didn't see any significant debris in the drillings at Fill Site 6 and continuously. So it's not clear at this point whether or not the fill site is as extensive as it was in the alternate remedial action document.

And we were able to get one surface water sample at the Nike Swale in the wettest area, which is down this. There were no other water seeping elements anywhere in the other sediment locations. We are still waiting on the sediment results from the Nike Swale.

And just as a final note, we will be presenting all these findings with some more interpretation on what we found in the appendix document that we will fax out ahead of time and that information will be taken into consideration when evaluating clean ups. Any questions? Thank you for your patience. That has got to be a record.

MR. KERN: I think this would be appropriate

moment to either quickly wrap up the meeting or take a brief break. There may still be some issues that I could bring up further discussion that if we have some time we might take a little bit of time to do that just following on some of the miscellaneous topics that are ongoing. So what is the interest of the group? I can carry on some of these conversations offline. They tend to be some of the ongoing issues that we're dealing with or we can proceed to wrap up any thoughts.

MR. YOUNGKIN: Let's take a break.

MR. KERN: Why don't we take a 5 or 8 minute break, stretch, come back, and wrap things up. Okay.

(Break taken from 8:40 p.m. to 8:51 p.m.)

MR. KERN: Thanks to all of you who have stayed to the bitter end as we continue on this evening. I had mentioned and Ina mentioned an email that went out and her response. I thought I would take a few moments to address some of those issues.

One of the concerns, I think, that occurs is this process is lengthy, complicated, and communications are a key element. Mark and I do go to a lot of extra meetings. We try to participate in going out in the field and we're given quite good access by the Trust on a variety of topics. We're able to call them up on a moment's notice, check in, visit them in the offices. We do have good

access, really unprecedented access, when we consider what we had going with the Army when we would hear about reports two years after the fact and actually fraudulently proposed things. So there are a variety of issues that we had with the Army. It's been quite a bit different. We have had really great access and get out to the field and get to witness some of the stuff. That's been really great and I really want to applaud the Trust staff for their willingness to keep us involved.

Now for those of you who don't know me, I'm a mediator/facilitator. So this kind of work doesn't go without conflicts. You're going to run into disagreements and you're just going to run into outstanding issues. So part of what I try to do is track issues and that was the basis for my email message. I just want to say that if there was any sort of -- if you received that and looked at it and said, "Wow, these guys, at least in Doug's view, they are not keeping up. They are not doing what they need to do." That wasn't the intent of my email message. It was just I'm trying to track a variety of issues that I don't know when they are going to happen and what the timing is, but I am constantly asking and hopefully everybody knows me well enough that they are going to expect me to keep asking. I'm going to keep asking and they are not going to stop responding. That is the nature

of the beast.

My role at this point is to keep asking and there is a variety of questions that come from the rest of you as well. I thought this might be appropriate to respond to some of issues that were brought up because actually some of my questions have been answered tonight, and so that I'm trying to track these things.

I think one of the questions I had, for example, was the Building 207/231 corrective action plan. We've got some word tonight that that's out there and it's going to happen later this fall. That's a really important document. Again, for those of you who don't know, it's a gasoline station site it's a site dear to my heart because it overlays a Creek restoration site and so we've spent several years actually working with the Army back and forth on that particular issue. And we're looking forward to working with the Trust on developing that plan. It will be a very challenging document despite the fact we're all trying to do the same thing because complications with Doyle Drive, utilities, planning, transportation issues, and just a variety of issues going on there.

So I want to encourage people when we get that working group going that you will come to the meetings and weigh in on that site. So we did get some information back about the timing of that and 1065, so thank you for that

response.

The background metals issue is something that I've been carrying along. We did have some presentations by Bruce and I'm still -- what I'm tracking on this issue is various metals and how they were actually finally picked. And so it's been offered that we will be able to meet with Bruce yet again and work with him on actually looking at the individual metals. So if there is interest among you I want to schedule something. It's something I want to follow through with, but if there's any interest from you folks let me know and we'll try to schedule it so we can have a variety of people there.

Let's quickly go down this list. Here's an area that may present a little bit of -- I don't see how I would characterize this being diplomatic. This eco-risk level for lead has been an outstanding issue for me for a while. It's a carry over from working with previous decisions. I remain somewhat upset about how this number was identified and selected. And so at some point I would like to have a discussion about if the Trust would like to retain that number for whatever reason and I see in response that we will get a chance to see how the numbers were calculated. I happen to know how that number was calculated. I disagree with how it was calculated and I think it's still an open question as I basically disagree with that number.

I think that it's clear it would be important to have a discussion about it at some point. So how are we going to do that? That's kind of an open question and we can -- this is a relatively small group now. We can talk a little bit, however we're going to do that now or not. It's just --

MR. NELSON: Well, the next step we're moving forward with any cleanup number for eco is we're waiting on info from the State. Ideally what we will do is we're getting indications that perhaps the State is not accepting at face value what we're proposing. It warrants further discussion in general about the approach. I don't see numbers changing radically, but I think in that time frame when we talk about the State's comments and how that affects our approach. It would be appropriate to discuss that number and I'm going to be looking to explain that a little more in every sense and to further explain the validity of it. Or perhaps the holes in the approach if there are any.

But in general I think that what we have been moving forward with is tightening up and improving upon what the Army had done. So it remains to be seen. I expect to be getting comments from the State within the next few weeks. So at that time we can schedule a meeting.

MR. KERN: I can just let you know -- let me throw this one issue out to you -- that the problem that I have with the way this number was done was it's different from every other number in the whole Presidio in how this was calculated and it wasn't actually in the final analysis. It was sort of a negotiated, arbitrary, agreed-upon number and that's what I would like to see addressed. I would like to see it come back into more of a consistent basis with the rest of the numbers in the package. So it's not necessarily the value of the number, it's just the process of the calculation.

MR. NELSON: I understand the Monte Carlo analysis was used and that is unusual. Do you have any recollection, Brian, of why that number was retained?

MR. ULLENSVANG: Oh yes, I wasn't allowed to say in the meeting -- and Doug is genuinely correct in his assessment of that process.

MR. NELSON: Did you have any information from the discussions with Bridget? Do you have any recollection of why it was retained and not reevaluated?

MR. ULLENSVANG: It was a very contentious issue at that time with the Army.

MR. NELSON: No, currently?

MR. ULLENSVANG: No, I don't know.

MR. NELSON: We need to get to the bottom of

that.

MR. KERN: It seems like this is really an odd number. So it is not the actual number, but the procedure I have a problem with. So that's kind of an issue I have.

MR. NELSON: I think that in general what we're finding is the cleanup numbers we're coming up with that are going to apply to the majority of the cleanup sites are the special status numbers which are quite lower. And the general procedure that we're going to follow at these sites is to apply the lowest number that is the most protective of the most sensitive species at the site.

So if the plant numbers are ultra conservative for the animals you're in great the shape. So I really see that 477 lead number being applied very sparingly. Based on the maps that have been defined for where the eco cleanup numbers apply I think it would be a fairly rare occurrence to apply that number, but I'm agreeing to meet with you and talk about it.

MR. KERN: Yes, that's great. And again, in some ways the principle that I'm trying to deal with isn't even the actual value. That's what has sort of been gnawing at me all these years.

MR. NELSON: I don't have a history with that as you do.

MR. KERN: There is history there.

MR. O'HARA: Could this be submatter for a committee meeting and we devote with some planning or a large part of an evening to a resolution of this matter. Whether the committee with Trust representation can hammer it out or you get the satisfaction that you're looking for -- as if you're looking for some sort of an empiric resolution of the matter as opposed to an arbitrary resolution of the matter in number.

I'm not sure this is the venue in which to do that, but it is obviously an issue that warrants some focus and discussion.

MR. KERN: Yes, I think it would be good to deal with it ahead of an official document coming out and then we've got problems. So I agree with that.

MR. NELSON: Is it agreeable to the RAB members we will discuss this issue at a time when we've gotten further input on the approach to the eco cleanup numbers in general. I think it's more time efficient and decision efficient if we're looking at all these issues at once rather than sporadically talking about them.

Again, the issue of the cleanup numbers at this point is they are proposed. They are interim. They won't apply officially as a cleanup number until the RAB has approved them and so that lead number -- there may be some

room for looking at it further. Certainly we need to talk about it. I think if we can agree to do it at a time when we have some comments that would be good.

MR. KERN: I don't have any problem with the timing at all. It can happen at any time. Again, I'm carrying this to make sure I keep it in the pile.

MR. NELSON: Okay.

MR. KERN: We have a little discussion about the landfill regulations and the ARARs and Ina mentioned you're having discussions. I think that's great. I mean that is actually a bit of an answer to my question about sort of the progress on the regulations. I know that was a really big deal, landfill regulations, when we were going around with the Army. So I think it's helping that you're getting together and talking about regulations. And it is of interest to us to understand that set of things. So at some point you would give us a list or clue so we can start digging into that, that would be great.

MR. NELSON: If I could interject, like the other technical agency meetings we had with the agencies on Feasibility Study, RAB members will be welcome to attend the meeting where we formally talk with the agencies about it. And of course the ARARs will be discussed at length when we do the remedy discussions, alternative discussions.

MR. KERN: I'm carrying along this item of the Army Feasibility Study response and the Trust. I don't know at this point whether it's a great task to finish it off. It can't be a happy thing to be responsible to responding to the comments that were done on the Army's document. I'm curious where that is. Should we just assume we're going to receive that with the document? Is that what's happening.

Originally we thought we might get to look at it and that type of thing. So I am just checking.

MS. REACKHOF: We can try to get it to you before the Feasibility Study is out. I mean it would be after the fact then, you know. It's just taking longer than planned.

MR. KERN: Okay. The Landfill E issue -- it is a little bit of a new thing. So we're trying to engage you in a discussion around Landfill E review as a potentially controversial site. And one way to begin talking about it is looking at the conceptual model. So I appreciate your response back in email. I should say it's not a complete response to what I'm trying to get at, but we will somehow carry that forward. I don't need a response to that. I think we heard about the Contingency Action Plan.

MR. NELSON: Would you like me to tell you

about that? As I mentioned in past RAB meetings, the Presidio Trust is preparing a Contingency Plan that will apply Presidio-wide for situations where we're doing development, building construction, or improvement, and we come across something unknown, some type of contamination or suspicious chemical. This would be so we have procedures in place to deal with it. That Contingency plan is in draft stages right now, production is in an outline. The agency has reviewed and currently EKI has it.

Everyone is responding to some comments and they will be submitting it to Brian and myself, again for our review. Once we comment and they incorporate those comments it should be coming to you and I think conceivably that is within the next month to 6 weeks. That's where it stands.

As far as where the Contingency Action Plan would apply, it's basically any area not identified previously on any of the Army's maps, or our maps, or investigations. And the idea is these sites will come up. We've seen it occur before. The war memorial is a good example and the cleanup numbers that we're establishing now being finalized will be applicable to those sites since we're looking Presidio-wide at those numbers.

So when we clean up the contingency site it will be to the same appropriate eco-residential numbers that exist

for the other sites. Does that answer your question?

MR. KERN: Yes. It's coming, basically.

MR. NELSON: Yes, it's coming along.

MR. KERN: I have just a couple more things and then we'll get out of here. I have an item here of following along the hexavalent chromium. Where will it be considered a COC? I have gotten a bit of an answer for that tonight. We're going to see when the screening is complete when that work comes back from the consultants. So it's an issue, but thank you for that response.

And I have one final item, which is receiving advance chapters or appendices of the FS. So perhaps that in the past has helped speed up review of these kind of documents and the answer that we have back for those chapters. You are invited to come out and we will have a chance to look at them. That's great. I mean that's a good response that's what we're looking for.

So again the idea is to try to -- the original schedule was putting it around September or October to get this document and that's kind of rapidly approaching. So I'm making some mental calculations that maybe the schedule is slipping a little bit. If that's happening, that's fine. We're just trying to stay in touch with you about when we will see all this avalanche of stuff to review.

So thanks for responding and getting some answers

and we are tracking those things. We'll just try to keep staying in touch with you about them. Any questions from you that I've generated? I think this is an opportunity. These RAB meetings have often not been as back and forth participatory and with the Army they weren't. And we have a great opportunity to ask questions and to find out what we're trying to know. And it's hard to field those questions right on the spot, so thanks.

MR. MCKLEROY: Question, in general about -- we've all received a document outlining the changes to the general management plan. I wondered how those may affect the cleanup, if at all. And I thought perhaps because of changing residential use to recreational use, as they seem to do, there whether that will change the plans at all?

MR. NELSON: We haven't overlaid any changes. I believe the process is a fairly long process, but we are looking and we're not planning on making any changes to how the remedies will be applied in regards to the existing planning areas and the Alternative Remedy Document, so no changes.

Basically at this point I don't foresee that will be implementable because the FS and RAB will beat the PTIP out of the water and it will be settled. PTIP, Presidio Trust Implementation Plan, which is basically revising the general management plan, updating it, looking at the

changes. There have been other changes that are not likely to occur.

MS. REACKHOF: At this point we don't see any changes.

MR. MCKLEROY: Thank you.

MR. KERN: Any other new business? Some of the action items are things we've just talked about. We will try to arrange a meeting with Bruce and the Trust and some other folks. We're going to talk about the lead issue. I don't have to go over that stuff.

Agenda items for the 22nd committee meeting give to Mark and perhaps we can do some advanced planning to address some of these issues at that meeting and then September 12 we are here again. Any other comments?

MS. SHLEZ: Just one thing. One of the things that didn't come out clear about the Commissary Seep Action Plan is that we're going to be hoping to get some RAB input in terms of developing the remedy in terms of maybe how we're going to approach that. And we'd like to let you know ahead of time that that's going to be coming up. It might happen before the next whole RAB meeting. We'll be sending out emails to everyone about the action itself, but the remedy, development of the remedy, will be taking place in the next several months.

So we hope that all you guys will be able to

participate in that as well.

MR. KERN: Any other announcements? Thanks everyone for staying the extra time. Without objection the meeting is adjourned.

(Meeting adjourned 9:15 p.m.)

ATTENDANCE

RAB MEMBERS:

Edward Callanan, Jr.
Henry Chui, DTSC
Doug Kern
Bruce McKleroy
Jan Monaghan
Peter O'Hara
James Ponton, RWQCB
Sharron Reackhof, Presidio Trust
Brian Ullensvang, NPS
Joanne Chow Winship
Tracy Wright
Mark Youngkin, RAB Community Co-Chair

NON RAB MEMBERS:

Chris Nelson, Presidio Trust
Ina Shlez, Presidio Trust
T.S. Connelly
Gloria Yaros
William Jackson
Kate Poole
Dennis Downing
Walt Hanna
Gerald Anderson

PRESIDIO RESTORATION ADVISORY BOARD MEETING

GOLDEN GATE CLUB, PRESIDIO

TUESDAY, SEPTEMBER 12, 2000

7:15 p.m.

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MR. KERN: Good evening and welcome everyone. This is the regularly scheduled meeting of the RAB. I'd like to welcome everyone here tonight including the Presidio Trust, National Park Service, regulatory agencies, members of the general public, and members of the public who are candidates for the RAB who are here tonight.

I'd like to start tonight by asking whether everyone has an agenda, and are there any changes or modifications that people wanted to make to tonight's agenda? I am seeing none. I would also ask for any initial announcements before we begin, and I know that Ina would have one.

MS. SHLEZ: Hi everyone. I just wanted to announce that next Tuesday evening at 6:00 o'clock we'd like to hold a site tour for the new members that will hopefully get voted in tonight, and also for any present RAB members who would like to join us. The idea is to sort of give folks an idea of some of our sites. We are going to be kind of racing the sun to see as many things as we can so that's why we're starting at 6:00 o'clock.

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more details, but at this point we are going to meet at the Burger King parking lot at a quarter to 6:00 and will board our vehicle which can accommodate 15 people. So we would like all the new members that we vote in to attend if possible. And then however many spaces we have left over we can do first come first serve for the regular RAB members. So we thought we would start about 6:00 o'clock and try to hit as many of the sites as we can while we have daylight and also give a packet of information for the new RAB members to get everyone up to speed. And if you are interested in attending or in coming on the site tour please let me know.

I will send out an announcement about it by email. Keep it in your minds so you can send an email preempting mine that you're interested. That's next Tuesday, the 19th.

MS. CHEEVER: I would think that if more than 15 people wanted to come we wouldn't want to turn them away. But maybe extra people could follow in a car.

MS. SHLEZ: That is absolutely a possibility. There are going to be some sites where we're not really going to have to get out. We were hoping to talk a little bit on the bus about what we're seeing. So maybe the folks would miss out on that commentary who are

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driving behind on that because that's not feasible.

MS. REACKHOF: Actually if we find there's an overwhelming response maybe we can get another vehicle, or have another person with the group, and we can just hold like two vans with people. So I don't see that as a

problem at all.

MR. O'HARA: Doug, can I propose that we move Item 4B or -- wait a minute. Where are we putting the voting in of the new members? Let's get that up right away so if there is an issue that needs a question called upon these individuals could be part of the group by that time.

MR. KERN: Okay. Since we're -- let me check in with the committee folks about how long reports we might have for Item 3 because then you would be right.

MR. YOUNGKIN: I'm usually pretty quick.

MR. KERN: So, I think we're there. Let's go on with the committee reports and then we will be right to that.

MR. YOUNGKIN: Good evening. I am Mark Youngkin, RAB co-chair. We had our regular monthly committee meeting on August 22nd at Building 1750 at 7:00 o'clock. The first topic was membership issues, which we're going to hear more about tonight. We also discussed the skeet range environmental cleanup project on Crissy Field and discussed the upcoming sampling plan, sampling

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activities there.

We also discussed the Commissary seep site, which is also down on Crissy Field. George Ford gave an overview and background of the project and discussed the upcoming work plan and proposed work. We also discussed the master schedule and the Feasibility Study process that's coming up.

I also attended a meeting on September 5th, which

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was called to discuss the diesel cleanup number for the Commissary interim removal action. And the goal of this meeting was to select the diesel cleanup number that will be accepted. So we had a thorough discussion of the Commissary seeps problem. We had a discussion of how the Army came up with their salt water ecological protection number. We discussed diesel cleanup levels from other sites. The regional board was in attendance and they passed out literature from other military sites and bases around the Bay.

And then the Presidio Trust is proposing a 144 parts per million for the diesel cleanup number. There was a general discussion about this number. And it was a good meeting, and I think basically we should have consensus on that number.

MR. NELSON: At this time that's the number. The park service will be reviewing it as well as other

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agencies who will have to formally propose, review it, and see how it comes out.

MR. YOUNGKIN: We can bring that up later for discussion if anybody has questions about how that discussion went, or how that number was derived. Our next meeting is always the fourth Tuesday of the month, and that date would be the 26th of September in Building 1750, which is the old Army Reserve Center down by Lobos Creek, at 7:00 o'clock. Thank you.

MR. KERN: I can add a little bit. I had a conversation with Ina this afternoon about the meeting and she mentioned that George would be the one most able to

answer questions on the diesel number, and George couldn't make it tonight, but he would be willing to come to the next committee meeting to talk about this issue. So I have some questions. I'm sure other folks will, and perhaps we can hold off until that time because he would be the person who could address the questions properly. Does that sound good to folks? Okay. Thank you, Mark.

MR. BERMAN: Could I ask one question about the 144 parts per million? How much higher above the drinking water standard is that? Does anyone know?

MR. NELSON: I don't believe there is a drinking water standard for diesel. Is there, Jim?

MR. PONTON: No.

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MR. O'HARA: Is there a drinking water standard for gasoline?

MR. NELSON: I don't believe so. I believe the concerns with gasoline and other petroleum products are benzene and other compounds. Those are the ones that have the drinking water limits. If I'm not mistaken, this number that we're talking about is 144 parts per million -- it's a proposed number that hasn't really gone through the complete consensus building, but that's also for soil so that transfers into a different number for water. And can we speak to whether or not there's a number for water?

MR. ULLENSVANG: It works out -- there's a way of translating it. I don't remember what it was. Mark, do you remember?

MR. YOUNGKIN: No.

MR. ULLENSVANG: You asked the question about gasoline in soil. Gasoline in water is a different process.

MR. O'HARA: 11.6 parts per million is the gasoline number.

MR. ULLENSVANG: At the same location it's 11.6, and this is for diesel.

MR. O'HARA: And there is some sort of factor to convert it?

MR. ULLENSVANG: There is and the Army had

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actually done a study to generate these numbers using site-specific collected soil samples that were contaminated and created, and actually allowed marble-type, plankton-type animals, clams and small things that this might be impacted in the wetlands. These samples were created from the soil, and from that they were to look at the harm that was caused at different levels and work through what would be the appropriate safe level. And from that study they got 11.6 for gasoline and 144 for fuel oil.

They didn't have a sample that was 100 percent diesel. Their fuel oil had both diesel and fuel oil in it so it creates some complications. The Army interpreted the data just to show the fuel number because that's what they felt they would predominantly get on Crissy Field. Now there's a diesel issue it is going back in and relooking at this data and seeing what makes sense to use from this data and the other studies that were brought in from elsewhere from the Trust study from Canada to look at how this diesel

issue fits in gasoline and motor oil. And from that the number, 144 came out, which would be the same as the number that's currently in use for fuel oil here.

MR. O'HARA: Thank you.

MS. SHLEZ: I also want to add there's going to be a section of the Remedial Action Plan for the

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Commissary seep, which will have a lengthy discussion about how that number was derived so you will be able to read more specifically how the discussion went and what came out of that.

MR. BERMAN: I understand the gasoline and the fuel oil -- what I read was that there are no assessments based on human health hazards. They were all done on basic biological forms other than humans.

MR. ULLENSVANG: For this study it was just ecological effects.

MR. BERMAN: Are there studies incorporated into this where human effects are considered?

MR. ULLENSVANG: The Army did these studies based on human health, and those numbers for Crissy Field are less stringent than those proposed. The ecological numbers are the controlling numbers.

MR. O'HARA: I didn't know whether there was going to be an update on the Crissy -- the Commissary seep tonight or not. I don't see it on the agenda and I think for the record whatever came out of the committee reports might be helpful because as I recall that was one thing we did calendar for a monthly report on an ongoing basis. And

just for the record if we can have something specific on an update at each meeting that would be appreciated.

MR. KERN: I know -- because George isn't

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here that could be part of the reason it is not there.

MS. REACKHOF: The only update since that time is we're in preparation for the interim action plan right now, which is under way. And one of the things we were waiting for was the meeting with the regulatory agencies and RAB members that we just recently had to discuss the potential diesel cleanup number. And now we have at least a number to put into that document, and briefly talk about how we want to -- there hasn't been really any additional data or sampling that has occurred.

So what you had last time is really the update, and the removal action plan should be going through the internal process of being reviewed by the Park Service this week. And we will make any changes and issue it to the RAB and regulatory agencies.

MR. KERN: Okay. So we are ready to move on to Item 4A, and let me turn the introductions over to Jan. I have determined from our bylaws expert -- I had a discussion before the meeting with Julian, and we are in compliance with our quorum requirements so we can proceed.

MS. MONAGHAN: I am Jan Monaghan and I'm representing the membership committee tonight. We have five new members to propose and on our slate for 2000. And in a minute they will stand up and introduce themselves. They are: Jerry Anderson, Dennis Downing, Walter Hanna,

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Gloria Yaros. And so we are ready to present them as potential members.

MR. KERN: Thank you.

MR. ANDERSON: I'm Jerry Anderson and it says in the program I'm Gerald, but Jerry is what I would really prefer. It also says on the sheet pretty much what I had to say about myself. I am retired and being retired it would be a pleasure for me to donate some of that time to something that seems worthwhile, and this certainly seems like an extremely worthwhile program.

Before retirement I was an air pollution scientist. There's a company in San Rafael that I consulted with in air pollution problems, and I worked with them. Our work was developing and applying computer models explaining to government or private clients how things worked, and on occasion I was an expert witness in environmental court cases.

MR. KERN: Thank you, Jerry.

MR. ANDERSON: Oh, about the procedure tonight just as an indication never to take anything for granted, I once lived in a little tiny town in New England and was a candidate for one of the town boards and I gained the position by virtue of losing an unopposed election, which was really hard to do, but I did it.

MR. KERN: Well, my understanding of the

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process tonight, and correct me if I'm wrong, is that the

membership committee is proposing a slate of candidates, and we will be voting on the entire slate, not on individuals. So that's how that would work.

MR. DOWNING: My name is Dennis Downing. I live in the Marina, far into the Marina. As it says I'm a marketing representative for a management consulting company. I've lived in San Francisco for about 14 years or so. I'm interested in joining the RAB for a couple of reasons. For about the last ten years I've been one of three co-directors of a neighborhood group in the Noe Valley. One of the things I noticed there was over time, particularly on large projects, the majority of the work is done by a relatively small core of people, and you need to sort of replenish the pool of people. You have to participate in projects. So I sort of consider myself new blood here.

And the other thing -- the other reason -- I should say prior to what I'm doing now I used to represent a company that supplied central waste water treatment equipment, and I'm personally not an engineer, but as a result of that experience I learned quite a bit about the detrimental effects of hazardous compounds. So those are the two reasons I'm interested in joining.

MR. KERN: Thank you.

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MR. HANNA: Hi, I am Walter Hanna. I'm pleased to be considered for membership on the RAB. By way of background I was an investment banker and then executive Vice President of Sacramento Savings and Loan and founding President of Barbary Coast National Bank here in San

Francisco. And these activities bring to the board a great knowledge of financial statements and financial where with all. And so the thrust of my questions will be how much is this going to cost, and what are we going to do about it.

And because of the AIDS epidemic that was so prevalent in San Francisco I volunteered for the AIDS Emergency Fund, and in due time they asked me if I would become the full-time manager. I made a decision to leave banking to enter the non-profit world. I was manager of the AIDS non emergency agency. Two of my four children were at the University of Southern California and I wanted to move to be near them -- not to see them every day for lunch, but to see them periodically. And by chance an opportunity presented itself in West Hollywood to aid a very small non-profit organization that provided financial assistance for people living with HIV and AIDS.

I became executive director and took the company from a net worth of a quarter of a million dollars to over 4 and a half million dollars in volume. Perhaps more importantly I presided over the whole change of client base

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that we had and of the staff to support it. And when I arrived it was primarily a gay man's epidemic and we saw, during my ten years, the evolution of the epidemic to effect all sorts of people in the greater LA area as here in San Francisco, and we had to change our services and change our staffing. And that is, of course, we got the additional funding to do just that.

I was politically active at that time on the county

HIV Planning Commission. I was a chairperson on the planning committee of that commission and founding member of the Housing Opportunities for People with AIDS Committee, which was a county-wide committee that thanks to my input and leadership established a nation-wide model for providing housing for people with AIDS.

I've come back to San Francisco. It is appropriate at this time to retire. I have spent some time as a member of the Civil Grand Jury here in San Francisco County where I had the pleasure of working with Mr. Hultgren, and have participated in a number of other political activities here in San Francisco. I bring no political bias to this, but a devotion to the Presidio and to San Francisco, and a desire to see this beautiful landmark preserved for the next generation. Are there any questions?

MR. KERN: Thank you.

MS. YAROS: I'm Gloria Yaros. I am a

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teacher by profession. I taught English and Spanish in high school for 10 or 12 years. My family and I live up the hill on Jordan and one of the reasons I wanted to become a member of the committee was because we have used the Presidio for years; first with my children down at the beach, and now dog walking at the beach. But I agree with Walter, I think it's the jewel in our crown not only of California, but possibly the United States.

Well, I remember reading something over here that when the explorers first saw it they called it a "jewel unique in the world" and that the explorers had never seen anything quite so beautiful, and I agree with that.

I am not an entrepreneur by myself. My husband and I own Cove Net Rocky Mountain Express, which is a land, air, and sea freight carrier. We do have -- well, we work with the government defense department actually, and I was also telling someone that probably the most exciting thing we've done is got an awful lot of the supplies for our soldiers to Desert Storm; everything from toothpaste to athlete's foot medication, sun glasses, boots, tents, and uniforms. Body bags were the first things to be shipped over there. As I say, he was the brain behind the company. I'm a helper.

I have a daughter in law school and a son in college, and as I said, have enjoyed the Presidio for 25

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years, and I only hope that I can make some small contribution to keeping it the pristine and beautiful very special place that it is. Thank you.

MR. KERN: Thanks, Gloria.

MS. MONAGHAN: I would like to tell you about Kate. She's a graduate of Michigan Law School and she also did course work at the London School of Economics. She's an associate at Adams a law firm in South San Francisco, and they do environmental group representation. She's been involved with the Sierra Club legal and nature conservation team. I think she will make a good member.

MR. KERN: Would it be appropriate if we ask for any questions from the members at this point? Then it seems like it would be appropriate to entertain a motion regarding the proposed slate of members.

MR. O'HARA: I propose acceptance of the slate of candidates.

MR. HULTGREN: I second the motion.

MR. KERN: Is there any discussion? I am seeing none. All in favor signify by saying aye. Motion carries unanimously.

(Applause)

Let me express my personal appreciation for your introductions. We hope to hear a lot more about you and have you know a lot more about us. I think we'll have name

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plates for the next meeting and will welcome you up on to the table up here. And you will get all sorts of information between now and the next meeting so you can start learning about the sites and all the activities of what we have been engaged in. So let me again welcome you to the board. And thanks again for dealing with our sort of lengthy process in bringing people on. I'm sure it's actually sort of the test. So, thanks again.

MR. HULTGREN: I'd just like to say several things. One is I think the membership committee -- which I was supposed to be a member of -- I think they did a wonderful job on the screening of the applicants. I also think we have really a marvelous bunch of applicants. It surprised me we had so many, and as highly qualified as they are. I am very pleased with those that have been approved, and I want to tell them one thing that don't be disillusioned if it takes a while to sort of understand what's going on because I'm still learning and it is very complex. And it will come, but be patient. So welcome to

all of you, and I think it's a good selection.

MR. KERN: Any other welcoming remarks that people feel like saying at this point?

MS. SHLEZ: I just wanted to mention that you guys beat the odds. When we first ran the ad in the San Francisco Chronicle we received over 100 inquiries

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from people who were interested in the RAB. So you made it to the end, and I applaud you for that.

MR. KERN: Very good. Thank you. Moving on Item 4B, Evaluating remedial alternatives for Presidio Landfills: Landfill 2 as a case study. I have spoken briefly with some folks about this. I am -- and what I would like to sort of preface is I'm not going to say a lot, but the idea here is once we get into this is to be open to engaging in some sort of a discussion and to be ready to ask any and all appropriate things that you feel that kind of come up given the context of what's being presented.

So that's what I've been asked to say, and I have relayed that back. I have no doubt that the RAB members will respond accordingly, and there will be a good discussion about this. Let me turn it over to Chris.

MS. SHLEZ: Actually I'm going to get us kicked off this evening. This is kind of a landmark meeting in a sense because you have heard us talking at you quite a bit, and we hope that at this point we can start engaging you in more discussion, more dialogues, and hopefully start really talking about remedial alternatives

for the main installation sites. So what we hope to achieve tonight is to -- again, I will begin a discussion specifically talking about Landfills here at the Presidio.

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There are quite a few of them, and what we hope to do tonight is to get everybody speaking the same language understanding some of the more detailed aspects of deciding which remedy alternatives to include in the Feasibility Study, and to hopefully get the beginnings of your input, which we hope to carry on in much more detail, and in a much more dialogue kind of way about each and every one of the sites that we are going to be talking about for the Feasibility Study.

So we hope that tonight you'll learn a little bit more about how Landfills can be cleaned up, and we hope that you ask us any questions or provide us any input you feel necessary. We want to make sure this is a double-sided conversation, and we thought the best way to do this is to look at it in two ways; look at it in a broad generic way about Landfills at the Presidio in general, and then talk to you also about Landfill 2, which is somewhat typical of what we have here.

And we thought it would be a little bit simpler than some of the other Landfills we will be talking with you about in the next couple of months. And we thought this one would be a good one to get everybody started on. So with that in mind hopefully -- what we have today is we have a Power Point presentation, but we just wanted to have these things available. So there will be dropping off

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points for discussions. So as we go through this and Chris and Brian and I sort of go back and forth between some of the presentation materials we hope that you can stop us, ask questions, and really start talking about some of these things as we move forward. So with that I'm going to turn it over to Chris.

MR. NELSON: Thanks, Ina. Let's see. The first thing we're going to do is discuss a little bit about Landfill 2. To familiarize you with the location of the landfill, it's located in the planning area of the Presidio known as the Presidio Forest, which is a little west of the east housing area. The landfill sits in a canyon, actually a former drainage that was naturally occurring, and the Army, typical of the lot of the landfills out here, dumped garbage into it. And I know somebody who has a child that used to play on the landfill.

It is an interesting phenomenon to hear about the landfills when they were active. It is near significant landmarks uphill of the stream. That is the concrete and brick structure. The spring goes into it basically on a hillside below the landfill. What you have is Inspiration Point. There's a parking lot by the golf course to the west. So if you were standing at the overlook Inspiration Point, you would be looking down essentially towards a road that runs to the west of the landfill. And the landfill is

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approximately 2 acres and contains about 43,000 cubic yards

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of materials as estimated most recently in the 1998
Alternate Remedial Actions Document.

Are there any questions at this point about our
landfill?

MS. CHEEVER: Where is the playground?

MR. NELSON: It is right here. So the
Presidio Heights neighborhood is here Presidio Terrace is
just off the map, and the Julius Khan Playground is close.
This landfill is close to another landfill. There is
actually a road or a trail from Fill Site 1, which is at
the end of Portola Street to the sand trail you can take
from that parking area and walk right up to Landfill 2.

Significant also is it sits in one of the branches
of Tennessee Hollow that would like to be restored to some
degree. Just to give you a couple of ideas of what it
looks like, Quarry Road, which is a road which is a paved
dead end street at the Presidio kind of is between Landfill
E and McArthur. It turns into a paved hiking trail. It is
one of the favorite areas of the park service naturalists
and the volunteers with the Serpentine hillside that runs
up in this direction towards Inspiration Point.

There were a number of trees there that were
removed, and the park service has been attempting
successfully to restore the Serpentine grasslands with

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native plants. So you will see a lot of the wildflowers
that belong there, and the oaks. And those types of plants
thrive in those soils nearby. So as I mention these things
you might think about what sort of impact you might be
seeing when we will discuss this landfill.

The landfill sits in this mounded area here. The jury is out as to whether or not it extends underneath the road, but you see it running up this way. This would take you to the golf course area. There is some evidence that it probably extends underneath this section of the road. So just to orient you a little bit more, if you come down this way you go towards the dead end road. That's Quarry Road. If you go this direction you go towards Julius Khan Playground. If you go up this road, which is basically just a fire road, that is Willow Boulevard.

Off to the left you will see different types of trees, wide open sandy dune area, Julius Khan Playground and the Presidio Heights neighborhood on the left. You can approach it from a couple of different areas. However, I would say access is not optimal for remedial activities. This is actually looking directly into the landfill. One of the things I've learned in the past year and a half of working here is you can spot a lot of the landfills, and disturbed areas by the types of vegetation.

Cape Ivy is one of the fastest growing plants

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because it has an ability to regenerate itself in the small disturbed areas and will grow all over with different plants and soil and everything. This is a section off to the left of the landfill. If you were to walk over a few feet you can walk into the face of the landfill and see exposed material. And what was dumped in that from 1947 to 1973, is we had charred wood waste, glassware. We had landscaping materials, construction debris, and much like

many of the other landfills at the Presidio these are some of the typical wastes you would find.

In Landfill 2, by my best recollection, chemicals of concern are lead, copper, selenium, and zinc, maybe a pesticide or two. I don't believe DDT was in there. The cleanup levels we are concerned with, or the appropriate application of them would be to recreational and ecological receptors. And I also believe there was residential levels based on proximity to residential area.

MR. ULLENSVANG: You want to talk about the Alternate Remedy Document?

MR. NELSON: In The Alternate Remedial Actions document proposed excavating this landfill. It was a relatively non-controversial proposal. The Army actually had agreed, which was one of the few cases I understand where they agreed. We are excavating it, at least part of this landfill, and that would really sort of be an optimal

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solution, but we'll look at this further. We need to compare different alternatives, excavation versus capping, and then we'll kind of look a little more deeply into what the alternatives consist of.

MR. BERMAN: The only proposed use for this area was recreational; is that right?

MR. NELSON: Right. Actually the Serpentine grassland perpendicular to the landfill to the west of the site will optimally be extended onto the site, and then transitioning down to the woodlands that run down towards the spring.

MR. ULLENSVANG: We will talk about that in
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a few more slides. There is quite a bit to talk about on this issue.

MR. NELSON: Any more questions on Landfill 2? Is everyone on board with where we're going?

MR. BERMAN: Just one identifying piece of jargon, is there a depth measurement of how deep it is?

MR. NELSON: You know I have the Alternate Remedy Document here. I could certainly look at that.

MR. BERMAN: Anyway, it's known how deep it is?

MR. NELSON: It's estimated in general. What happened was the Alternate Remedy Document estimated greater volumes, greater depth, greater areas of the

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landfills than what the Army had proposed or had estimated.

MS. REACKHOF: Based on past and existing topography and over time.

MR. BERMAN: But no borings were made?

MS. KING: Some of the landfills -- I don't recall for Fill Site 2. I'm Michelle King. Some of the landfills there were borings that were put through until they hit native soil, but that's only like at one point in the canyon. So you don't really have a full sense of the depth from a couple of borings so it's through a combination of ways that we were able to estimate the volume.

MR. ULLENSVANG: For all of these sites the actual volume estimates are not exact. They are estimates approximations. Some sites are more totally defined than

other.

MR. KERN: Well, we need to add to the list of what was found there. I think some medical waste was found there as well.

MR. NELSON: Thanks for adding that. There was some suspected medical waste. I don't recall from the RI whether --

MR. ULLENSVANG: They had some waste that looked like medical waste.

MS. REACKHOF: I think focusing on Landfill

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2 we're also trying to generalize to give people an idea for all of the landfills that these are the types of wastes there are. So it's a little mixing of Landfill 2, but at the same time we are trying to give you an overall picture on the landfills.

MR. NELSON: So without further questions or need for discussion on Landfill 2, just to sort of introduce the next topic, I'm going to turn the floor over to Brian who is going to discuss the 3 steps that we're going to be looking at tonight, and how we deal with comparing the alternatives and evaluating them.

MR. ULLENSVANG: I think maybe I'll back up a little bit particularly for some of the new members who may not be familiar with the process. There is a process that is generally followed for selecting cleanup remedies and that includes investigation of the conditions of the site, and that remedial investigation is often called an RI for an acronym that is followed by a Feasibility Study, which looks at a range of alternatives, then does a

comparison of those alternatives against a set of 9 criteria of specified procedures. And then a selection of the most appropriate alternatives is made based on the evaluation of the 9 criteria.

The Army started this process. Many of the RAB members will tell you a number of years ago -- and I won't

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even try to guess how many, but it predates my time. Ms. Monaghan is holding up 6 fingers. I think it actually was longer than that. It was a long time ago that they began this process of studying these sites, and went through many interpretations of putting out remedial investigation reports, having people comment on those, and doing additional investigations.

Finally that evolved into working on a Feasibility Study. After a few versions were put out there were many negative comments received on that. Following that time the Trust came into being, and was in the process of negotiating to take over the lead agency. And to make a very long story short the Trust is now working on preparing a revised final Feasibility Study, which will evaluate alternatives and lead toward the selection of appropriate alternatives for each of the sites.

So now back to the slide that I was using here as my aid. At this time, as Chris mentioned, excavation is appropriate here, but there still is a process that needs to be gone through to evaluate and compare these 9 criteria for the different viable alternatives that come out to a screening process for a site like Landfill 2. And like

many of the other landfills in the Presidio there are three basic alternatives.

And for those of you who were here earlier in the

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spring, maybe March, April, or May, somewhere in the spring time frame, Michelle went through and talked about the different alternatives. This is just to summarize them. There's a cap, which is either a low permeability cap, or a soil cover which goes on top of the waste site if it's a low permeability cap or if it's a soil cover. And that's one way to protect against the waste, excavating the waste, and removing it either to off site disposal or recycling. And then as required by the NCP, National Contingency Plan, which sets forth the procedures, there is a no-action alternative.

So each of the active alternatives is compared against one another and against a no-action alternative. In some cases you can imagine where a remedy may be more harmful than the threat caused by the site. So a no-action remedy is required by the State. The rules require that's parts of the evaluation.

So we've summarized those three alternatives. We're not going to talk much about the no-action site tonight because that's pretty simple. We are going to talk about some of the elements that go into capping a landfill, and excavating a landfill. As you will see in the slides there is a lot of commonality. This is where the meeting hopefully will get more free form. I know it is hard to read. They are in your handouts.

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What they are is we've broken this into the different phase of the remedy. The first slide is site preparation. So we've presumably selected a remedy, and we would be capping for our investigation. And these are the types of actions. These are the subsets to give you an idea of what's going on, and some of the step-wise process that go into evaluating the alternatives.

This is site preparation. Chris mentioned access to the site is going to be a major issue here for building or developing roadways so that trucks either hauling waste out or bringing materials in for a cap. In either scenario the vegetation, the wooded sites, the vegetation has to be removed and disposed of through composting, landfilling, alternative energy using fuel.

There's a number of different ways the trees and brush can be disposed of or removed. Staging areas have to be developed if the waste is going to be an off site haul. It needs to be placed somewhere. If the contents of the landfill are to be recycled there may have to be a work area near the site. Monitoring wells will have to be removed or destroyed. You can see the road on the first picture, and that is a likely way the trucks would get to the site.

There are rare endangered plants on the hillside right where that post cable fence is. Trucks going through

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this area will damage that area so fences will have to be

constructed to keep trucks out of sensitive areas and to keep park visitors and users away from dangerous areas during the construction so there are no accidents. That's a very popular dog walking path. A lot of people walk through that nice area right now, and it will become a construction site for either of the alternatives.

Traffic control -- how to remove visitors. How do you let people continue to access parts of the park that are available, and yet restrict them from the areas where there is heavy construction. And we will work with the different groups, and will think about the other things we have to do so we can all at some point select a remedy. And we will hopefully come to a consensus. It will be a big thing, and we all need to work through them when these impacts are being used to best protect them against -- to best evaluate how they work against the other alternatives.

Is there a difference between capping and excavation for the road? Does the road need a different size truck? All these things go into the evaluation and what the best alternative is.

MS. SHLEZ: Chris mentioned that something was missing off this table and that was mobilizing the construction crew to get out there. And that is everything from putting a staff trailer out there, restroom

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facilities, and basic communications.

MR. NELSON: Temporary fences around that area.

MS. SHLEZ: Fences around the area and just getting contractors out to sort of evaluate and get

situated at the site because they are going to be there for days and days.

MR. ULLENSVANG: For those of you who were here watching the Crissy Field activities, these were not necessarily cleanup activities, but you could see the types of equipment and the areas they had to develop to park the equipment to do maintenance, to store materials. And that's very similar to the types of activities that go on with either excavation or capping.

MR. NELSON: When I was at Fill Site 1, which I mentioned is quite close to Fill Site 2, I see an optimal staging area. But one of the conflicts I can see is when I did the trenching in July I was really astounded at how many people are out there in the middle of the day at the playground nearby. You have a huge number of amateur and professional dog walkers with rafts of dogs. There are joggers, mountain bikers, and people just wandering around and enjoying the Presidio. And you could basically say through maybe a series of meetings or just announcements that the area is going to be greatly

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restricted for those uses. And that is all part of the remedy.

MR. O'HARA: What or is there any mention in the Presidio Master Plan of what the intended uses for Landfill 2 are? And from a Master Plan standpoint, is there a preference for excavating it or for capping?

MS. REACKHOF: Yes. As you may or may not know the Presidio Trust is actually working through a

Master Plan, which is updating the GMPA. And that is going to take some time, probably a good year before we'll have a sign of what the overall Master Plan will be. However, the one thing we do know, which Chris is going to talk about specifically is in the restoration area it is important that we talk about that consideration.

And also what Chris mentioned previously is that if we all recall we did put out the Alternate Remedy Document discussing remedies for all of these sites as well as the remedies that were identified, which were consistent with that in the various memorandums of agreement that we had with the Army and the Park Service. And the remedy for the site was excavation.

So the Trust still is and will consistently be looking forward to working with those remedies if the data and regulatory agencies and RAB members are all on board with them.

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MR. ULLENSVANG: Peter, also the vegetation management plan talked about this area, and this is the natural area that comes off Serpentine grasslands and transitions into it by a corridor through Tennessee Hollow.

MR. O'HARA: So that in its excavated state it would be an optimal use of the property as opposed to its current state. And when I say, "current state," I am referring to just the volume that's there. If you cap it, it would not be consistent with what the park would want to see as its optimum geographic use?

MR. ULLENSVANG: I would say it would be harder to be consistent with a capping alternative. And

that's one of the things -- Tom Eckels is in the audience. We'll get to some of the vegetation stuff. One of his roles is to develop vegetation plans for the remedial sites. So he came tonight to answer any questions I couldn't begin to understand what is going on, but he is working through each of the remediation sites in developing vegetation pallets of what plants types go there, and if it was a cap scenario what would the vegetation be; how would it differ from an excavation scenario; how is that consistent or less consistent with the vegetation management plan.

Maybe Tom should speak more to it, but the what is there is very important to the plants. And Serpentine is

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a very rare substrata. Is that accurate?

MR. ECKELS: In general, yes. Serpentine is a rare substrata. There's a lot of it in the Presidio. A lot of it has been covered up by things like landfills, though, and so putting a substrata on top of a cap -- for instance a substrata of Serpentine would be kind of a difficult thing as opposed to uncovering it, I believe.

MR. O'HARA: How about the recurring issues that the natural state they function better than in an artificial state?

MR. ULLENSVANG: 2 is a good example because the water is somewhat -- it diverts across the fill, and it kind of nestles up against it. So it does present engineering issues for erosion. If you had a cap water would be flowing over the cap and around the cap. And if

this were a natural area in the park we would line those channels with something like asphalt, but in a naturally restored corridor those would be inappropriate materials. So it would be a much more difficult engineering element of a cap to deal with by preparing a corridor issue around or through the cap structure.

MR. BERMAN: I think I need to be refreshed on something. If I take a scenario where you didn't do anything, which is one of the background comparisons, what are the ecological dangers? Is there seepage? What area

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would be affected, and what is the nature of the affectation there? I'm not trying to change the plan in any way. I'm trying to understand because there are other alternatives than just maybe a partial cap or partial excavation, but they are not mutually exclusive in some ways. So one should try to understand what the ecological threads are that are associated with this landfill.

MR. ULLENSVANG: I'm not going to be able to address each of the threads, but two of things that would be helpful too -- I will begin that discussion -- are as far as really any of the landfills are generally very heterogeneous so it's hard to know which part of the landfill is necessarily worse than another unless there's a clear indication. In some there may be a clear distinction in some areas. We don't see any evidence of that here. It appears that just truck loads of material were put in there, and any one could be different or the same as another.

some way homogeneously, heterogeneously mixed up throughout the landfill. So that's kind of the partial capping in this case. Maybe as more discussions go on this will change, but there doesn't seem to be a distinction as to having one side capped and another being excavated. Some sites may have that.

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MR. BERMAN: Doesn't that really depend upon the ecological threat? In a sense even though a it's heterogenous, a portion of it is amenable to polarization. I've walked through that area. Stuff is loose. You can compact it down and lower the size with simple machinery.

MR. ULLENSVANG: And some of the sites you will see that sort of analysis that one portion of the site maybe needs to be treated differently than the rest of the sites because that's what makes sense. Here, given the threat, there are chemicals in this landfill, and there's the threat of exposure to either humans or wildlife or plants. And if I recall, lead is very elevated in one of the samples of this site, and lead is both harmful to humans and harmful to the ecology. And if either humans or ecology come into contact with that it causes physiological harm.

So that's the idea with capping is that you prevent that contact. With excavation you prevent contact by removing. With capping it's left in place, but barriers are installed. I don't know if maybe somebody else has an idea of better explaining the eco threats.

MS. KING: I think maybe one thing to keep

in mind is what we've talked about in May and in June where the development of human health and ecological risk based cleanup levels were developed. And what we've done and are

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doing is taking those levels which were developed and are still being discussed to some degree -- in looking for the ecological effects we looked at various types of plant/animal populations. And looking at toxicological studies we looked at lead and how that impacts the plants and the mice and so on and so forth, various animals and plants, and developing the number, a set of numbers that would represent -- I don't want to use the word "conservative set of numbers," but we do want to be protective of human health and the environment. And a lot of times risk assessment, potential risk is a hypothetical risk because it's very hard to extrapolate to an individual situation in a specific site.

And so the intent with the goals is to be somewhat conservative. To really go to what -- I think this might be the heart of your question -- is if the landfills stay there would there really be any adverse impact to the environment or to humans, and none of us can sit here today and say, "Yes, it is. All the plants are all going to die." I don't think we can say that, but the idea is to develop a set of goals and to look at these sites in a protective manner.

So I know it's hard, but these discussions in developing goals -- the intent is to be protective. So no-action in theory may be okay, and in what we're doing is

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to try to be protective.

MR. NELSON: Sam, following up with what both Brian and Michelle have said, keep in mind the Feasibility Study -- I think about it as a funnel. There is a lot of information that goes into this process. We're looking at ecological receptors, human health receptors, and developing these cleanup numbers. So actually we can look at these numbers and say, okay let's compare these numbers to what's at a site and find out if that represents a problem. And if there were a site where there were no contaminants that exceeded cleanup numbers, a no-action alternative might be something we would look at more carefully because you have projected down the line.

We have got these numbers. They are standards for the Presidio. They say there's not much of a risk so maybe we can focus our energies on another site, and we are excavating the whole thing, and on this one we can excavate the part that may be an obstruction to future restoration or presents some sort of other public health hazard. And what it brings to mind is sites where building materials that don't show impact, but if some one walked and tripped over concrete or steel those are the kind much things we want to protect against.

So I hope that answered your question in terms of looking at the various alternatives and not just weigh in

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on the 3, but that the funnel process in looking at cleanup

numbers and alternatives it comes down to what is the best. And Brian is going to mention later the circle of criteria that the Feasibility Study requires be looked at each for each alternative and compare it. And that will help us answer those questions.

MR. ULLENSVANG: Sam, keep with the idea of seeing what we can do with -- the best of both is what you're trying to do because there will be some sites for that are pretty good. And it becomes viable in the process we want to be open to looking at that, and not just say it's got to be one of these two.

MR. HENDERSON: I think it's been partly addressed, but I'm not sure I exactly know the answer. Are you saying that the toxic materials in this dump either do or potentially would lead to values above the cleanup levels?

MR. ULLENSVANG: The values within the waste right now exceed the cleanup numbers. Even though those numbers haven't been filled out yet, these numbers are high enough they clearly exceed the numbers.

MR. HENDERSON: The point of capping would be to keep that from leaching into water passing through?

MR. ULLENSVANG: Water passing through, yes. In some cases where it's a no-permeability cap, in some

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cases where there is a soil cap it would prevent physical contact from the contamination by either you or I, or your children who might play around the contamination. In this case there are volunteers who do plant restorations. We don't want them to contact the material.

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MS. KING: Also like burrowing animals.

MR. ULLENSVANG: Yes, anything that might bring the waste into contact with the animals, plants, or humans.

MS. CHEEVER: For instance, the EKI reports from '98, in soil, copper, lead, nickel, selenium, silver, DDT were detected in samples and or ecological cleanups protecting special status species. Then it says in water it may be predesired, but concentrations of hexavalent chromium, lead, and possibly cyanide exceed the fresh water quality effects.

MS. KING: We're going back sort of with the new cleanup levels with the data we have and reevaluating what are the chemicals of concern, but it is a handful of chemicals. In a sense it's not all that different than what you pointed out.

MR. O'HARA: I just have a question. Brian, in your response to Sam were you speaking in general of many of the landfills, or were you speaking specifically of Landfill 2?

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MR. ULLENSVANG: I was doing both.

MR. O'HARA: That's what I thought.

MR. ULLENSVANG: I was trying to talk to him about some sites at the Presidio that I think will lend themselves to having competitive alternatives, which combine capping and excavation, and in that way not Landfill 2.

MR. O'HARA: Okay.

MR. DOWNING: Is there a situation you could describe as an example maybe of where it would make sense where you would prefer to cap something as opposed to excavation, where it makes sense to leave the materials there rather than to excavate them?

MR. NELSON: I can answer that question for you. There's a landfill at the Public Health Service Hospital, which is off of Battery Caulfield. It's a road that runs down from the area near Washington Boulevard down to the Public Health Service Hospital, and it is closed off right now. That landfill is about somewhere between 8 to 10 feet thick and contains a variety of materials that we're not really positive -- we feel pretty confident that it's not having a great impact on groundwater.

So, we're likely to cap it because if we excavated it we'd be digging up bodies of dead seamen who were buried there in the cemetery. That would be culturally wrong and

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sort of politically incorrect and offensive to those who have been offended already by having garbage thrown on their grave sites. That looks like a political issue, but we do take a careful look in groundwater and soil.

And using the cleanup levels we are able to prepare. If we don't have water impact then really the issue is, is something going to get into the waste and be impacted by it? That is why you say, maybe we should cover it with something, treat it with native plants or something. And then you have a less likelihood of people or animals getting into it.

MR. KERN: Going back to -- just looking at
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the site preparation slide what occurred to me is a question as to trying to get a feel for these impacts. Maybe there are some folks here that could comment on the number of days, or what are we talking about in terms of the whole impact in terms of time in going through these series of steps? I mean, I know we're talking mobilizing, setting up fences. Can all this happen in two days or something?

MR. NELSON: Mobilization and staging can take place within a work week or less. When we look at these types of things we also consider whether or not they are cost effective in doing tree removal or if something can be done in-house. We have a forest industry. We look

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at if we have to go through the contracting process of getting outside firms. We are also going to have to go through compliance in determining which trees are part of a historic landmark.

This is all sort of leading into determining if we may need to remove 7 or 30 or 50 trees. It remains to be seen. So a lot of the trees in that area are quite large, especially the Eucalyptus trees, and those are all considered non-essential in most cases. They are ultimately chopped up and hauled away. I would imagine that would have to take place on another site to make more space in the trucks. However they are done, we're looking at several days of work there. So I think for site preparation we are talking reasonably it could be several weeks.

MR. ULLENSVANG: It may not necessarily happen right away. Before the work is done the project is evaluated for cost purposes, efficiency, and recycling purposes. The Trust may want to come in and do tree removal on all the sites at once. You may get a contract with a bio-energy firm that uses conversion of electricity or a compost facility. So it may be some of these sites are several years from the beginning to the completion of construction, and construction is going for a four-year period for different sites.

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I would say generally this site could be a month or two, which I think is about what we said, and some sites would be much more than others. I think, as Chris mentioned, we may stage at one site or work at Landfill 2. It seems to make sense to do a lot of the work at Fill Site 1, which is nearby, and that's a possibility. Where you move the material out of there, accesses will be a lot of the issues, and how you access that site will depend on how the timing is set up for staging and things.

If you were doing two sites at once because they are in close proximity of 1 and 2, you might spend more time preparing and spend 2 or 3 months getting an area ready and have a big operation, and that's a design. Although the Feasibility Study will kind of work through the constraints and the general idea, but the details will come out of the design which comes after the remedy selection.

MR. NELSON: I think it's important to point out in looking at impacts and timing and what not we're

depending on the alternative that's most appropriate that we choose. There are a large number or a small number of construction pieces of equipment that might show up there and Brian is going to talk about that a little bit more. So the more equipment you have -- the more aggressive the remedy, the longer it could take. We're talking about

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issues of odor, noise, potentially odor and noise and for sure dust.

And this is right near a residential area, and in some cases there are landfills near residential areas. And those are things we are going to have to be ready for.

MR. ULLENSVANG: I think for any of these big projects we shouldn't underestimate the effort that is going to go into the prep capping or exploration investigation at most of these sites. And they are not like 637 which was a fairly small site. These are bigger sites and will take a longer plan and longer to get ready, and for the most part longer to do.

MR. NELSON: I think you can all recall how long it took to do Crissy Field. There were a lot of different elements. Restoration has been going on longer than the remediation. I came on right when that was in full swing, and Crissy Field is certainly one of the biggest areas that has been remediated at the Presidio, and probably will be the biggest ever, but imagine Crissy Field times 30 sites like that where you're doing excavation. You have equipment all over the place, staging area trailers. It's going to go on for many years to come.

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MR. ULLENSVANG: The cleanup in Crissy Field

was on the order of 90,000 tons of material removed off site for cleaning purposes. The cleanup and off haul that

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the Army did was about 90,000 tons of fill. Landfill 2 is about 60,000 tons.

MS. KING: Yes.

MR. ULLENSVANG: So you can see that these landfills are not unlike the cleanup the Army did at Crissy Field. And so this is a lot of trucks. You remember the holes were there. Before the restoration project came on there were big excavations going on, and the Army took quite a while to do it. There was a lot of prep work going into it, and that may have been apparent to everyone the way the Army was working, but there was a lot of planning that they did to try to minimize the adverse concerns that often played a part in projects of this kind.

UNIDENTIFIED VOICE: What actually is the amount of area that will be affected aside from the landfill when you are talking about preparing and going in and staging? How much else will be affected?

MR. ULLENSVANG: It's going to be very site specific. It's going to be site specific. It's going to be specific to the design and remedy at Landfill 2. We talked about the actual area of the landfill is about 2 acres, but depending on how the roads need to be worked in the corridor -- if you've walked on it, it is a very narrow road, and would not support two-way truck traffic at the same time. So if that is the way in and out they would

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take, both the upper and lower stretch would be converted into haul routes, and would take the entire road. And fencing would have to be put up so the trucks wouldn't try to make the road wider.

There would have to be other spots if material was being recycled out of the landfill. It would have to be trucked and put someplace so it could be processed, and that may take another acre or two to manage that sort of material depending on if it's combined with other sites. So it's possible that one site can be chosen as the processing area. Those concepts will, I'm sure, be talked about in a minimal way in the Feasibility Study so that the impacts can be evaluated, and the alternatives. But the details will come during the design phase when it comes down to what time of the year it's going to be, how the actual material will be disposed of, whether or not we will take it to another landfill, and will the Trust recycling program be able to manage it. We will talk about recycling.

MS. SHLEZ: Let's move on to the next slide.

MR. KERN: This might be, given the time, this might be a moment to take a break because this looks like it's going to go a little while, if that seems appropriate to everybody. Let's break for ten minutes.

(Ten minute recess taken)

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MR. KERN: Thanks for coming back to the

table, and at the moments before the break we were talking about moving on to the next slide. So let me give it back to Ina, and I have talked to a number of folks, and there are additional questions. So, we're generating enthusiasm and responses.

MS. SHLEZ: That's fine. The slide we are on now is site preparation. The next one is probably a little more interesting, and that's construction itself. So I don't know if there are any carry over questions or discussion points from before.

MR. O'HARA: Is it okay to comment on the expression of surprise on just the nature of this meeting. I have been a member of the RAB since its inception and I have never been to a meeting like this one in which the opinions of the members have been solicited, opinions and participation of the members community members have been solicited as much as they have been at this meeting, and I think it's wonderful. It's absolutely wonderful.

The only concern I've got is we seem to be focusing on not only the problem, but the mechanics of the solution such as the construction activities and what those do to construction, or destruction, or whatever it happens to be. And that's great, but my sense is from perhaps just intuitively I get the sense that the Trust wants this site

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excavated. And if that's the case why do we want it excavated? And let's focus on the excavation rather than all of the downswing issues.

Maybe I've missed something here. I think this is a wonderful discussion, but the purview of this board is

not the impact of the construction, but rather the determination of why we need to excavate the site. And let's get on with it.

MR. NELSON: I think I can respond, if I may? As I mentioned before with the funnel analogy, I know there's been a lot of anticipation of information coming out talked about remedies. I know there has been a lot of information that I've presented in the past at meetings and other people have presented information that is leading up to that point where we talk about site specific actions and remedies and how do they apply.

Uniformly I'm sorry to say we are not entirely at that point right now where we can do that. So what we wanted to do was bring out into a forum like this where we can all discuss it and look at the different options and alternatives. We will be doing this in more detail and in discussions with all of you in meetings. As you will see in a couple of slides what we're proposing is to really roll up our sleeves and ask, "What are we going to do with this site? What is the Feasibility Study leaning towards?

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What's the consensus?"

And since we're not at that point for every single site, we want to be able to pick a site where there is some history behind it. Why do we want to excavate it? Well, the Tennessee Hollow is a key issue. I know you touched upon that earlier how Polin Spring is a culturally significant resource. These two things are obstructed by Landfill 2 being there. Excavating the landfill and

removing it so there's nothing left but Serpentine and restoring plants would treat that site in the best way.

And again, we mentioned 12,000 parts per million of lead in one sample. That's a high level of lead. If left in place it could cause problems. So we have chemical problems as well, as well as ecological issues and GMPA issues. We want to do the right thing and clean it up, and if excavating is the best thing, that's what we're willing to do.

MS. SHLEZ: Why we are talking about all these pieces of what goes into this, is because even though we're proposing excavation for this site we have a lot of other landfills here. We will be discussing other landfills. So we wanted to make sure everybody understood what goes into deciding between capping and excavating other sites as well. So the idea is to get everyone thinking about what goes into each type of remedy and be

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able to apply that kind of thinking when we talk about some of the other sites in the next few months.

So it's kind of like almost like a one-on-one, how do you choose between one or the other, and what kind of things or factors go into the design.

MR. O'HARA: Again, I don't want to monopolize this conversation, but are factors like the non-toxic issues -- what weight do you give something like construction and these issues up here when deciding whether to cap or do nothing? If you've got a remedial problem, you choose a remedy based on the public or ecological issues rather than convenience issues to neighbors or some

of your park tenants. It would seem to me if you've got the problem you've got to take care of the problem as long as you can do it in a financially responsible way if it involves, as it sure does on Crissy Field, all these periods of time.

We have got a nice promenade down there for people that have walked through an awful lot of mud to get to where they were to here where we are today.

MR. ULLENSVANG: Why don't we flip to the next slide.

MR. NELSON: We keep coming back to this bureaucratic explanation of the Feasibility Study and how it fits in, but there are a lot of different things that

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Brian was going to go into later on that talk about how all these different alternatives are going to be prepared.

MR. ULLENSVANG: There is no set pattern here. I think it's good when it comes up, and some of those short term impacts, and some of those -- I think you call them downstream issues -- are ones that are required to be looked at not necessarily specifically, but in general. So, when you look at short term it might have working health and safety. You have to look at is it going to expose people in the short term while the long term may be effective.

So there are two similar alternatives and the sites we have here at the Presidio don't fit the classic typical sites. Of course, there is no typical site, but the textbook typical site has a whole range of alternatives and

some of these sites have a lot of short-term impacts, but are very good long term. Some have fewer short-term impacts but are not as good long term. We balance these things out, and some neighborhoods are very against the short-term impacts even at the expense of the long-term predicaments.

So those come into community acceptance. Obviously you recognize the need to endure the short term effects for the long term result, but I have worked on projects where the short term is a significant element for that particular

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community.

MR. O'HARA: I think that just my perception of what's going on is that you will never get a 100 percent agreement on the remedy, but it's qualifying what the inconvenience is going to be in terms of what to expect, when to expect it, how long it's going to be there, and what the results will be. That's what people don't know and that they get upset about, and to the extent that people are part of the team because they are in on what to expect. That, I believe, is going to solve about 90 percent of your problems.

MR. ULLENSVANG: That is part of what tonight is also trying to do so that those of us in this room are already a team coming together. We all are coming together. There is going to be a short-term inconvenience with these sites and some of the inconveniences are going to be pretty obnoxious.

MR. NELSON: For many years.

MR. O'HARA: As long as people understand

that.

MR. NELSON: There will be a small percentage of the people outside of the Presidio that will be impacted by this, and there are also a lot of people who don't come to these meetings that will be affected by this. But I don't know if you can fathom belonging to a lead

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agency and being a government employee who serves the public. "You are my client."

We get it from all sides, and we feel this is a really important thing to talk about because also what it does for a lot of the members is we're kind of going to reach across all levels of RAB members; people who have been sitting here for ten years to let them know when we are going to do this or this. Then there are people who are just getting on board, and we will say these are the kind of things we are doing.

We will have this open-ended discussion dialogue. I'm happy to hear you like that so that we can roll up our sleeves and get to the nuts and bolts of what this will entail. We're not trying to gloss over the fact of how we propose to clean up the site and why because that is something we're getting to. And as much as I can take responsibility for the fact we're not there I will, but there are steps that we have to take in terms of who reviews what and when it's releasable. And that's where we are right now.

We've had a lot of information come in and we're processing and reviewing it. When we get that information

we will talk about what we are going to have to do this at this site, or this is what the Feasibility Study is saying. How do you feel? Does that answer your question?

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MR. HULTGREN: Two questions. One, is this an educational exercise using Landfill 2 as an example?

MS. SHLEZ: Yes.

MR. HULTGREN: Second, will this set the pattern for how the other sites will be discussed in the future, or are you telling us what things you will be looking at before you bring to us your recommendations?

MR. NELSON: Ultimately we are all going to be looking at these things because these things come into play in selecting a remedy. And we're not trying to focus on just these three things as the deciding factors. We're going to have to take out seven trees and that's not a good idea so let's leave Landfill 2 in place. That's not what we are going to be doing, and these are not overriding factors that are going to make that decision for us.

MR. HULTGREN: No, but when you come to us with another site you will at least summarize the things you have considered along these lines. We may not debate them or we may question you, but you will summarize what you have done and then the recommendation from that.

MR. NELSON: Ultimately what I envision us doing is we are going to be able to categorize sites by their different types of landfills that have a water problem, that don't have a water problem, some that lie in the restoration area, where the restoration would be

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impossible, if they were removed or capped, miscellaneous building materials that were used and there's some contaminated soil outside. We would like to be able to look at these sites with their similarities.

If someone says I have to talk about Building 1369, we're going to sit down and talk about that building, but we are going to get to a point where we have discussed it with the park service. We have run by you a lot of these numbers: the background metals, the cleanup numbers. You will have another opportunity to look at them before we get to that point. And it will be a very organized thing. We will say the Feasibility Study is leaning towards this preferred remedy. Let's talk about why you like it or do you not like it.

MS. KING: I think Chris has very much hit it on the head. I think what's going to happen is we'll try to put together not necessarily a full detailed non-criteria, but you will have a sense of cost because no one's really talked about that yet here. But at the end of the day when we look at these sites as a whole cost it is going to matter. And a lot of these types of steps that we're talking about you can actually put cost to them. So part of talking about these steps is it's helpful to understand also what ultimately goes into a detailed cost estimate so you can understand well, it's \$7,375 to remove

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a tree approximately. So that's whether you're capping or

excavating. That's a cost we have to look at.

So what we'd like to have is the process for the alternatives along with the ability then to discuss things like short-term impacts and the various 9 criteria. And I think the Trust, in conjunction with discussion with the park service, will have a recommendation at that time, but they really will be seeking your input on it before the document gets handed to you and the agencies for review. The idea is to get your input before it's in your hot little hands to review the whole document.

MR. NELSON: I guess I would open the floor a little bit and see -- I think I'm sort of getting from Peter and Julian what you're hoping to see, when we even actually get to that point -- we sort of put this out there through a collaborative effort to get people used to talking about the situations. We are going to be coming up against how to talk about the issues. Does anybody here have a vision of doing in a different way to get this information out there?

We want to make sure you feel like you're part of the process and you've had your input and we've considered it. And we don't want to jump any steps that make us feel like you were left behind. Does anybody have any ideas about that?

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MR. O'HARA: From a conceptual standpoint then, how to do you track this thing logically on a historical basis, and then from the standpoint of what the Trust needs, what the Trust envisions, and why, and in what the empiric data suggests. I think if you were to

establish the basics of what the Army's Feasibility Study recommendations were and what your needs are because it seems that there are two issues: what does the Trust need and what does the empiric data say?

Are those two issues consistent with the budgetary issues? They might be, and what your recommendations are as a result of all this. I think you have comparatively what the present needs are, what the budgetary issues are, and what your recommendations are if there are any questions. Certainly there's enough basis for second guessing, which I think is what the purview of this board is. It is if there is second guessing to be done at that point that the discussion can be had, and we agree with your recommendation or we don't. But unless somebody has another idea I would package the presentations based on that.

MR. HULTGREN: I think then the issues that you have been going over tonight and that are still on the rest of these sheets would sort of be your arguments to support, if you feel it necessary, your recommendation if

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you will because that's really what you're doing. I think to present the pros and cons is better for this in every sense.

For another reason we can see how it stacks up, plus other considerations of what the goal is and what the costs are, but these are really arguments to support a decision.

MS. REACKHOF: I want to say something

quickly. The one thing I am hearing is, "What does the Trust want?" I look at this as a collaborative effort. There is an Alternate Remedy Document that came out that was the Trust's position on what remedies they would like to see out here, which is again what I had stated earlier we still obviously prefer, or based on additional information, or if things change based on additional data that's gathered, or new information.

This process is a team process. We're working with the park service, the RAB members, the regulatory agencies, and the Trust. We are all working together and what we've been doing since we took over is we've done additional data gathering, screening of the database information and additional data. We're starting to adopt applicable and appropriate requirements that are out there. We are reviewing and assessing ecological and human health risk data, all the components that come into making a decision.

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A decision has not been made in my mind on any of the sites. Recommendations did come forward in the Remedial Action Document, but it comes forward in the Feasibility Study. When you look at all the 9 criteria and one of those criteria is cost, and we were providing recommendations here tonight. Julian, what we're doing is giving an overview since we're still moving forward with trying to even get to the remedy.

Probably what I would say is the table that you are all talking about which would talk about each of the sites and then the information appropriate to each of them that gets filled in based on the 9 criteria and additional

information we've gathered. We will look at that as a team and we will talk about what does this show us. And that to me is, again, moving forward, and I see it happening soon. Tonight is giving you an idea of some of the components.

We needed people to start looking at when we talk about the Feasibility Study and costs that go into it. As Michelle was saying in each of the remedies there are different things that need to be taken into consideration. When you reach a cost estimate, which you need to do as part of the remedy selection process. And so tonight was just trying to get a dialogue going while we're moving forward with the other pieces, where we will all sit down and look at each of the sites including Landfill 2. No

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decision has been made on that.

That was used as a case study because we felt it was something that was pertinent to a lot of the landfills out here. It was just an example, but we can use some existing information to put forward some of the criteria thinking that people can understand a little in every sense. But everything you see tonight -- we wanted to bring everybody in to see what some of the other items are and some of the real components that are included in the cost estimates, which we all will be looking at when we look at one of the components of the criteria we're looking at to determine what remedy should be used.

So I didn't see this as trying to present anybody's opinion. I still don't feel there's any Trust or park service opinion. I think this is an opinion we all do

together. We put out the remedy document, again, as our recommendation based on the Army's Feasibility Study, and that's the starting off point. But we have told everybody from the beginning the Feasibility Study was the beginning for us and the roll up your sleeves meetings that will follow that will look at each of the sites will have all the criteria. And we will be doing it on this level.

These are some of the components we thought we would bring up to let people see some of the different pictures and items that aren't normally discussed in

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meetings like this. I know all of you will be meeting to take information to community groups that you are working with because you are the ears of that community. You are the voice from them to us, and back the other way.

So, again, we hope that all these meetings we have done and will be doing can help both of us to get the word out and move us forward with this process. That's my personal opinion on it.

MS. WRIGHT: Most of us would agree it feels more like a team effort. Tonight is a great example of that. I think you guys have raised some extremely important considerations that I don't think many of us really would like to even think about. We just want to get it done. I agree with what Peter was saying. Ultimately, if it's the right thing to do let's just do it, and find the best way to take care of all these concerns. But it's really important to think about them. I hope we continue to find ways to hopefully creatively address those situations of community concerns about closing down for a

long-term remedy.

Maybe we can do some community education in spreading word about when and why it's happening, and why it's so important, and why this will result in long-term benefits, and that the short term whether it be two months or two years would be worth it in the long run. I think is

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really kind of bringing it to the discussion. I can already think of some of the things in this last list where I can think of ideas of okay, that could be bad, but let's do this. Maybe we can come up with some solutions on how to protect the plants in that area. It would be a tragedy to lose some of the habitat that is in the R and R area. So maybe I'm hoping this is part of that kind of continuing effort. Thank you for tonight.

MR. NELSON: Is there some value in continuing on this track, or give a big cheer and say we're happy?

MS. REACKHOF: I think we should wrap it up. There is some additional information you might see on your slides on costs and some of the other components.

MR. ULLENSVANG: What people could do is work through the notes and handouts and slides and we can talk about it at the committee meetings if someone has questions. That would be a way to do it, get another forum to follow up if we don't want to do it tonight.

MR. O'HARA: I'm very, very, very pleased with this particular meeting and the dialogue that's going on. I really want to thank you very much for listening to

in particular as let's get things out in the open. So I am very pleased with what has come about as a result of this persistence.

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MR. HULTGREN: This is a little bit of a different standpoint in going over these things. It's sort of a plain English nuts and bolts way so we can kind of see what the considerations are, what the thinking is, what the issues are. And it is more meaningful to me than anything that has happened in these meetings for a long time.

MR. BERMAN: I am happy to study the slides and material, but there are some things that I have not seen in the presentation, which probably you have thought about, but I don't see them at all discussed here. And that's I think you've assumed you are going to use essentially a truck-driven technology and there are other ways of dealing with landfills other than moving it by truck.

And a classic example of moving large amounts of material by an entirely different means is done by the oil shale industry, which is basically oxygen driven suction to move much larger amounts of material than you're talking about here in these landfills over large distances. And one of the things that occurred to me is that there isn't any discussion of these alternate movement technologies. Maybe they're all too pricey. Maybe they can't work in the Presidio, but moving pulverized material downhill from Landfill 2 by suction is a lot less disturbing than moving it using a lot of trucks and building roads. There is a

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relatively small amount of machinery involved, and it's a well understood engineering method.

And I for one would like to see some discussion about the alternatives when you consider there is a lot of disturbance associated with 4,300 truck loads in the course of this. And so this is not to say I haven't appreciated the openness of the discussion here, but once you let it open up I might ask questions you might not be so happy about.

So I would wonder if you've already looked at this and haven't taken the time to give us the information, or whether this is something that still is worth exploring in some way not to deal with this problem because there's a lot that -- as we said there's a lot more than Landfill 2. You have many, many sites here and there's going to be a lot of trucks, not just 4,300 truck movements. There's going to be many, many, perhaps a hundred times more than that. And maybe there is an alternate technology to look at.

The excavation and capping can also be done by suction too. So that's one example. I don't know. There are maybe others out there, but I certainly know the technology is an entirely different approach to this excavation.

MR. NELSON: I am actually interested in

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hearing more about that. I think I can respond to your

comments in two ways. One is I hate to come back to cost and schedule, but those things are untested out here and could be major stumbling blocks to a successful remediation. The other thing is I'll tell you a couple of the sites where we've really all been scratching our heads is you can picture the coastal bluffs areas where we have a couple of bluffs.

There have been interesting dialogues opened up that are looking at those sites as to how those sites are going to be dealt with. And dump trucks maybe involved at some point, but I can tell you we're not going to be bringing dump trucks up to Disturbed Area 1, Baker Beach. I think you will be interested in hearing about some of those sites. Brian may want to add some other response.

MR. ULLENSVANG: I think Sam's right. What we talked about tonight was a truck-based technology, and it's not meant to preclude other technologies. And it was misleading for us not to be more inclusive of the technologies we didn't talk about tonight. And I don't know where the Feasibility Study is on suction, whether it's one that screens out early because of a consideration that the engineers brought up at fill site. But as Chris noted there are a number of technologies that are going to be looked at for some of the sites beyond just the

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conventional bulldozer truck.

MS. WRIGHT: I wanted to ask if that's one of the criteria that's put out when you are looking for a contractor is if you know that you -- let's say that remediation activities -- the site solution is going to be

pulling everything out. Then at that point can't you just ask contractors to give their solutions? Maybe it would be various technologies. We could put it in their court to come up with the best way and the best cost estimate, but also be considering other alternatives on how they might do it with the least impact. Is that something that can be done, put it in the contractor's hands?

MR. NELSON: What's going to happen at the end of the Feasibility Study process is there's going to be preferred remedies that are put forth, and those will be carried forward into the Remedial Action Plan, in which we will talk about how the remedial activities will work. There are downstream discussions as to who is going to do it. They are helping the Feasibility Study process along. We have done field walks and looked at different things, and that's why I talked about mining technologies for dealing with Baker Beach, Disturbed Area 1 and 2, or someone has talked about a bulldozer being tied off and barging it out.

MS. WRIGHT: Helicopters and barges.

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MR. NELSON: The whole helicopter thing is not flying with me. No pun intended, but I wouldn't want to think of one of those falling out of the sky. The other thing I think we really need to consider about the heterogenous nature of waste in the landfills is, if you recall my discussion about Landfill 4 in particular at the last meeting in my mind, it started to become clear compared to previous and current studies that the landfill

is a lot of dirt.

And one of the things we're going to evaluate is we've got concrete, metal, bricks, asphalt, and we've got wood. We've got a lot of materials that don't have to be dumped in piles of soil and hauled to a landfill. We are going to be looking at the issues of how much can we recycle and how much can we reutilize on our site that we are remediating, or at another site at the Presidio in the future. Wood can be recycled. Metal can be segregated. Concrete can be crushed. It can be reutilized at all sorts of different plants in other areas.

So the reseeking component makes that technology less desirable because we would suck the entire landfill out in one fell swoop, and then we would lose that opportunity to recycle. One of the Trust's mandates is to be environmental sustainable, and we're trying to close the loop on sending everything out. We don't want to take our

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landfill and scoop it all up and put it in another landfill. That doesn't meet a lot of the criteria that is looked at in what you're doing downstream with the waste. I'm not putting the cabosh on the suggestion. It's fascinating to me.

MS. REACKHOF: I encourage anybody who has ideas or alternatives, please that's why we're here is to get that information, and to try to utilize it.

MS. KING: I have a question for Sam. We have not -- I can honestly say we have not considered suction for the landfills, and this is the kind of thing that typically would fall out in the technology screening

which we visited way back in April where there was a lot of that Andy presented. I don't recall if you were at that meeting, but if you know of a vendor that does this process we could put a phone call into a vendor and talk about what it needed is to mobilize this and to check it out basically to see if it's something that is remotely feasible.

MR. BERMAN: I don't know a vendor. I do know if you talk shale oil -- what is that? They won't even know what it is here because there is no shale oil in California. It's all in Wyoming and Canada. It's a multi-billion dollar industry that's going on out there, and we don't have any connections here with that in California, but they are moving stuff in suction

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techniques. So they are moving lots of material over long distances.

There's a technology there and I wish I knew how to contact a specific contractor, but I don't think it would take a lot of effort to find out who is in the shale oil business because I know that Standard Oil has been one of the partners. A couple of days of phoning around and you'll get the information, but I can't provide it.

MS. CHEEVER: Well, if we're wrapping up soon I would appreciate spending just a minute on the page on remedial actions for site restoration because I'm kind of excited about the possibility that removing landfills may result in restoration of the original sites. Our new members may or may not know that a lot of these landfills were placed on ravines because that was the easiest place

to dump things years ago. And other types of restoration earth has been restored, but it has been excavated.

So I'm curious how the decision -- of course this is the night we have the park service here. How will the decision be made of what to do if you have a partially or completely excavated ravine as to whether it would be put back there, or will there be issues of shoring up what this might be on the steep hillsides? Is it for the park service to decide?

MR. HENDERSON: Is it the Trust's

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jurisdiction, or would we as the RAB have much of a say in that? Do you have any comments on that aspect of it?

MR. ULLENSVANG: I think I can start on it and Chris and Sharron may want to chime in. A number of the issues that you raised are going to be site specific, and sometimes we're not going to know. You asked about shoring or trying to protect the environment. It's how you prevent it from washing away after you remove the waste. It's probably going to be a very disturbed situation.

At Bear Rock and the coastal rocks we have steep faces and it may resemble a severe landslide. It's a balanced area and the natural resource folks right now have a landslide -- they are working on a natural landslide pilot project to understand more the success of plants that come in and the tools they use to foster a natural system there. And there may be some learning that goes through it may be that different erosion techniques are necessary to give nature in every sense a hand up.

It may also be, if you look up here there's

monitoring long-term survivorship learning that goes on and also info planting. Maybe the first plant isn't very successful and the second year out we'll need to do a lot of work. At some of these sites there is growing the native plants. If you're familiar with some programs here in the Presidio it's a very long process and very labor

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intensive and a lot driven by volunteer help. But there's a certain fixed quality of plants that can go through the nursery at any time. And if the Trust, for construction needs we talk about logging on the sites, may be because they are going to set up a recycling plant for concrete. They are going to need to dig out the landfills and then the resource folks can get plants on them.

So, we're talking about techniques to stabilize that site to hold it until the plants are ready. Maybe that means holding it for a year, and what you do is you don't bring in a non-natural seed. That's evasive, and you have to deal with it so you might have to put fabric over the sites in an operation to help prevent erosion. And then you get esthetic issues where you need 2 acres of fabric. There are a number of things going on. Do you want to give a follow-up?

MS. CHEEVER: Is there a possibility of planning ahead to get as many plants ready as possible at these sites.

MR. ECKELS: Well, as you can see the nursery needs an 18-month minimum advance notice for seed collection, and that has to do with the whole process of

finding the seeds and soaking them in the nursery and getting root development so they are ready to go out and will survive on their own. The nursery system and the

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volunteer restoration programs are set up currently where there's a constant flow of work and volunteer base, but there's going to be a lot of fluctuation as I understand it, or it is possible there will be fluctuation in the workload as the sites are remediated.

So the resources staff will not necessarily be able to revegetate the sites in the ideal manner, which would be putting the plants out in the winter when the soil is at its moistest and when the plants are used to doing the most growth. So there may be sites where four remediation sites that are done at once and the nursery can't grow that many plants at one time, and we don't have that many volunteers. So the sites may be covered for part of a year or until the next outplanting or temporary irrigation if we're going from planting in the summer, which we don't usually do. So those are unknowns to deal with in the next few years.

MS. CHEEVER: This is an interesting comment on the vegetation management plan because I know there are citizens and neighbors who care about every tree that's taken down. So I think there's a big job to be done. Perhaps we have a part in this to plan on helping people understand what's going to happen. And to me at least it's very worthwhile. The result is more restoration of the true natural habitat.

MR. BERMAN: Tracy brought up an interesting

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concept, which there hasn't been a response to here and that is about community education during the restoration process.

And because it is a temporary upheaval with lots of difficulties I wonder if that's something that the Trust is actually involved in in some way. So that it's not necessarily our purview that we get involved with that, but certainly there be a lot of disturbances. And if you go with the truck technology, or whatever, there is going to be lots of some ugly things happening in the short term.

MS. SHLEZ: I think I can speak to that. Community relations is going to become a major part of what we're going to be doing once we have some remedies established, when we have a sense of what's going to be going on, and when and who is going to be affected. We really want to make a concerted effort to reach out to those communities and make sure they understand what's going to be happening and what time frame it's going to be happening in and how they will be personally affected by that. And that will evolve depending on what site we're talking about, whether that site is pretty much in an area where no one is really living there, but maybe a truck route would take it past the residential areas.

We will do our best to try to meet with those neighborhoods to try to discuss what's going on and allow

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them to have some input to some extent. With any kind of

large construction project we have truck traffic going through, or noise, or other factors. We want to make sure we talk to the folks who are going to be impacted by that and let them know why it's going on just as much as every other thing.

MR. BERMAN: What are your proposed vehicles for doing that?

MS. SHLEZ: It all depends on who and when and where. It's going to be very specific to each individual project because if you look at the Presidio there are neighborhoods within the Presidio. There are neighborhoods that border the Presidio. We have sites and places in areas like Baker Beach sites where there's no one living there really. So people who live there might not be impacted, but maybe people who use the area for recreational reasons will be affected.

We will have signage and contact information. Just to give you an idea, we did some sampling for the skeet range down at Crissy Field a few weeks back and one of the things we did was I was out there while they were doing the sampling talking to some of the folks who are were walking by on the premises. In addition, I was trying to explain what was going on and letting them know that this is a temporary thing and there might be additional actions in

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the future etc.

So there might be things like that that we do depending on what site we're looking at and what actions we're talking about.

MR. BERMAN: Seems to me we would want to
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have something that is a little larger with the ability to reach a larger number of people than just you talking about the project. There are things like Bay TV and there's the newspapers, the Chronicle and the Examiner. It seems to me you should really be thinking about larger ways of dealing with this problem, and short segments on the TV sometimes are actually appealing to the producers of the TV shows, and we would get that free.

MS. REACKHOF: I also want to say that one of the things we're going to utilize is we've learned a lot from the work that was done at Crissy Field. I think that Carol Prince's work and all of the work the park service has done on a lot of their projects was done very well. We've gotten feedback. Ina has met with Carol, and the way the Crissy field project and restoration activities have taken place has been exceptional not only in the signage for dog walkers and runners well in advance giving people the heads up to say, "Hey, this is going to be changing."

In addition to that they already have a good base of community groups that they have worked with. I know that

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Ina has worked closely with the groups trying to get that updated Community Relations Plan. The Presidio Trust has a large base of people. In addition we will be utilizing the other avenues of the newspaper and whatever media we can because it is going to be a very visible project, and the Presidio is very highly visible area.

So if you have any additional ideas, or anybody has some connections with certain places definitely be in touch

with Ina and we will work with you as we move forward with this process.

MS. SHLEZ: I think later on once we get closer to that point it might be a good idea to form a committee on the outreach within the RAB itself so we can discuss how we specifically gear towards that aspect of the program because it certainly is very important.

Before we wrap up though there is one part of the slides I wanted to go over very quickly because I want to give people an understanding of the context of this. What we have here is we pulled out some sample cost line items from probably a whole universe of possible line items that might have to do with constructing two types of capping and excavation. I actually personally choose these line items because I don't have much of an understanding of construction background. These were things that were interesting to me, things I never really considered,

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especially in terms of the cost.

So I thought that -- what I want you to understand is that the costs that you see here are basically costs that EKI has solicited from various contractors. They are real world costs. However, I don't want you to think what you have on the screen is the absolute final cost for these kind of line items. I don't expect that they will change drastically, but they will probably change for each site as you see them. So I wanted you to understand the context of where this was coming from so that a few weeks down the line if you see that a number is different or something like that it's because those are then the present real life

costs.

So I wanted you to have a context for that, and we did costs for both excavation and for capping. And there is one thing here I thought that would be interesting to you, and that is we have all these different types of capping materials listed here, and Michelle actually brought some samples of these materials. So we thought we would pass it around so you can have a sense of what these things might be; what they will feel like, and look like.

We talk about these things in the abstract a lot of times, and it's hard to picture what these things look like. So we thought this would help explain what they are.

MS. KING: Let me say the first thing black

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thing is basically a polyethylene, 40 millimeter thick liner that sometimes is a component of a liner system for a capping system. And then we have this one in the bag with the little particles falling off of it. The back side is the same kind of plastic. The top side has some bentonite, which is a clay material. When you use it as capping it's wet and it forms a low permeability cover. This is one particular vendor's example of what a low permeability cap could look like, but other vendors will do this also.

This one is a geotextile fabric almost like a felt, and on the inside you might have the clay. So it just basically comes in a roll, and you roll it out on top of the landfill. So vendors have this particular gray one which has really what we call a drainage layer. And on top of the low permeability cover you often have a drainage

layer so that the water that comes in rainfall or irrigation would then drain off the low permeability cover.

So we'll pass them around so you can kind of feel them. This is one vendor, and all the vendors have their proprietary systems.

MR. BERMAN: That last one is a geosynthetic clay layer?

MS. KING: GCL is the one with particles coming off and it comes in many forms. Like I said it is just one sample of a GCL.

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MR. BERMAN: Is the clay actually separately installed, or is it in the material?

MS. KING: It's attached and sometimes they'll put it between the two felt layers because that way it's less messy in rolling it out. It's adhered on top of the plastic and the particles fall off, and it's not as easy to work with. I'm sure different contractors and design firms have their preferred vendors.

MR. KERN: Question on the some of the costs, which I have -- we've looked at a lot of the costs in the past, spreadsheets. One of the cool things that happened at 637 was when some of the numbers, as I recall when they were lower than expected, because of where the material was disposed of. Are these numbers -- what are they reflecting? Are they the most recent numbers, or what were we looking at here? And one of these says transport disposal of non-hazardous materials at landfill facilities at \$60 from transport disposal of soil, alternate daily cover \$30. And I'm not really sure what these are saying.

In previous things we have seen both disposal of it or haul it away if it's hazardous.

MR. NELSON: What we're going to go get into in comparing transport soil is when you end up with either soil that doesn't meet hazardous or class 2 criteria at the landfill, but it also doesn't meet space requirements at

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the Presidio, or it doesn't meet any of the cleanup numbers here we essentially have to take it away. One of the nice things that's going on in the landfill industry right now is that a lot of landfills have a soil deficit on site. They have to cover their waste with a certain amount of soil. Some of them have nearby sources where they can get the soil. Some have to take soil from other sources that won't contribute to the contamination of their landfill.

We have soil that has been separated out from debris that was not meeting the hazardous class 3 category. For instance this might be mixed with something that might not make it optimal soil, but could be used later as the clean soil that they have to cover landfill waste with.

MR. KERN: So this is like class 3 or lower?

MS. KING: Not actually. For ultra daily cover you could actually have a fairly high level. It's very often petroleum contaminated soil. \$60 is stuff that has to go into class 2 level, and so it's non-hazardous material. So let's say you have a lot of metal and debris and stuff mixed in with your soil and you don't separate it out in the cell. If you have soil with minimal debris in it, if it's non-hazardous it can go as daily cover.

MR. NELSON: Since the landfills look at that as a resource rather than as input it's more attractive for them to take that. I was telling Ina at one

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of the landfills I dealt with when I was in the private sector, I audited them and found auto shredder fluff. It was an acceptable form of alternate daily cover. All the materials that come out of crushing cars that aren't metal are acceptable materials to place over a landfill. It's amazing what they are doing. Landfills are amazing facilities these days.

MR. KERN: So those numbers, the 60 and 30 --

MR. NELSON: Local landfills we would calculate the amount using based on the proximity and criteria our soils are meeting and whether they would be able to accept them.

MR. YOUNGKIN: Can we talk about the schedule real quickly? I notice the last item says weekly --

MR. NELSON: If you feel like we've talked about the cost factors enough and you're getting an idea about some of the items we were talking about before and the restoration, excavation, and capping. You can see how those numbers plug into the cost. We can wrap up the meeting by mentioning that as I mentioned earlier there's a lot of information that's still outstanding. We're fully aware of that and we want to get that information to you.

Let me just say that in terms of the Feasibility

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Study our next steps are next Tuesday the tour for new RAB members where you can actually see some of these sites and get an idea of what they look like. And you can see how some of these elements we have been discussing tonight would be interesting to implement when we use these remedies. Ina is going to send out more information on that as well.

I believe that the RAB themselves have put together a meeting with the EPA to discuss ecological risk cleanup level approaches that the Presidio Trust is proposing and that will be taking place at the regular planning committee meeting at Building 1750 at 7:00 p.m. The 26th is two weeks from tonight. I believe Mr. Black will be there from the EPA, and I am hoping the park service, Trust, and regional board representatives will be present as well.

MR. BERMAN: What time?

MR. NELSON: 7:00 p.m. on the 26th the regularly scheduled planning committee meeting. So one of my action items I'm carrying over from previous meetings was to bring back concentrations levels from background metals. And I told Doug I would be willing to schedule an additional meeting when that information is presentable to give it to you a little bit ahead of time to talk about it at a meeting. I'd like to see that happen before the end of the month if possible. You may recall from early, early

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meetings, maybe March, April, we talked about this.

MS. SHLEZ: Before we adjourn I have something. If you are interested in attending the meeting on background metals studies if you wouldn't mind sending me an email about that so we have an idea if that meeting needs to be in the daytime, or if it needs to be an evening meeting. So it would be good to know in advance how we can schedule that. So if you could email me if you are interested in attending that one I would appreciate it.

MR. NELSON: And then we had mentioned in our work plan and process of going through the Feasibility Study. We were to have four different meetings, three of which are out of the way. These are meetings during the day when the RAB and the agencies are invited to participate with the Feasibility Study process of selecting remedies and what not. Those were the hexavalent chromium issue and the two ecological cleanup numbers. The last one is the ARARs issue. We're still working internally with identifying ARARs at the Trust. We have legal counsel working with us on that. The park service has come up with some input on that, and the agencies are also coming up with input. So, when can we all meet for that?

MS. CHEEVER: Could you define in one sentence for our new members what ARARs are?

MR. NELSON: It is a laundry list of

regulations and laws that might apply to the remedy that we're choosing. That's one of the things that was not really done necessarily in the Alternate Remedial Action Document, and it wasn't adequately addressed in the Army's Feasibility Study. So, we're trying to do in every sense a

Feasibility Study that complies with a lot of those regulations and takes them into account.

Last but not least is something I've alluded to in the past both last month and earlier this evening. We realize that it's time to get down to talking about remedial alternatives, and you've all expressed very animated interest this evening in doing that and hearing what we have to say, and we want to include you in that collaborative process.

So, we're essentially proposing to have a working group meeting every week on Tuesday night, if that works for people, starting next month because this month is already filled up. If Tuesday night is not good we can propose another night, and we can sort of knock out all these sites and all these discussions. And maybe in two months we'll be talking about something else, but how do people feel about that, more frequent working groups?

MS. WRIGHT: In the evenings would be appreciated.

MS. CHEEVER: When you say, "working group"

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though, do you mean dividing in into the four working groups?

MR. NELSON: Whatever the members that attend can do. We will give as much advance notice about the topics and groups of sites that we may talk about one night. We will say we are going to talk about miscellaneous sites, and another night we might talk about landfill sites, and some may be trickier landfill sites,

and things like that. So we'll try to break it up so we can cover a lot of the sites. If you have suggestions about how you want to do it such as by drainage area that's fine too.

MS. SHLEZ: Doing it by working group would be preferable as opposed to having a meeting where there's a regular planning committee meeting or a presentation meeting. The working groups would be to specifically discuss the alternatives for specific sites. So it would be focused discussions as opposed to a whole laundry list of RAB topics in general.

MR. NELSON: It would be similar to what we did back approximately in March, April, May before you all presented the sites that you had studied. It would be those types of meetings.

MR. HENDERSON: It would be hard to have weekly meetings on Tuesday if we have RAB meetings and

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planning committee meetings too.

MR. NELSON: We're trying to compress as much information as we can into available evenings, and also trying to maintain the semblance of the schedule we put forth. I am open for suggestions if we want to do it a different night.

MR. KERN: During the regular RAB meeting we could devote a portion of it too.

MS. SHLEZ: And committee meetings as well.

MR. YOUNGKIN: Maybe it would help to give us a proposed draft of how many months we have.

MR. NELSON: I don't recall off the top of

my head how many months are left.

MS. REACKHOF: We're working on it, and the working groups can look at sections. And so we're not going to be creating a document and giving it to you. You're part of it. We have a lot of information. Let's come together and talk about it so we can get this out to you.

MR. YOUNGKIN: So there's several months?

MS. REACKHOF: You have only got a couple more months. We have an aggressive schedule. A lot of the information -- we would like to have more working group meetings. A lot needs to be finalized and we want you to be a component of the Feasibility Study. And, of course,

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we would like to have it done in a couple months, at least in draft.

MR. KERN: Any other comments on the last slide that just got shut off?

MS. REACKHOF: I guess we need to find out -- maybe the RAB wants to talk internally and get back with Ina on what would be preferable times.

MR. KERN: Tuesday is a good suggestion.

MS. SHLEZ: Maybe at the next committee meeting on the 26th that could be an agenda item to send out a schedule of some meeting dates and times.

MS. WRIGHT: If it's in any way realistic to suggest some sites on particular nights in case some people can only go to one or two meetings. This way they can pick and choose the ones they want if that is possible.

MR. NELSON: I think one of the other things we wanted to convey is we're not discouraging talking about each individual sites, but I think it's for everyone's time and everyone's sanity, if you will, to group sites together and look at the similarities. That is one of the exercises we did tonight is to say Landfill 2 is a special site, yet it's typical of a lot of other landfills in the Presidio.

So, when we talk about implementing remedies we can also say, "Here are the issues that are very similar to this site we just talked about. Let's get a feel for do we

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need to go into a full blown discussion of every single site, or can we say we feel confident that these remedies are going to be implemented at sites like this."

MS. REACKHOF: I think it will come as we go and start having the meetings, and put the information out to the people, and if they feel comfortable with it, and what kind of interaction starts happening. I think as a group we will work with it together.

MR. KERN: Action items? I think we've got a few on the list. Agenda items? We have got one: send out a schedule to help decide when to have these working group meetings. Regular agenda items to Mark.

I think it was mentioned several times and I won't belabor it that people appreciated this approach, and I would like to thank you guys for putting it out there and making this happen tonight. Any other comments? Without any further announcements or comments this meeting is adjourned. Thanks for coming tonight.

(Meeting adjourned at 10:00 p.m.)
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RAB MEMBERS IN ATTENDANCE:

Jerry Anderson
Sam Berman
Dennis Downing
Julian Hultgren
Doug Kern, Chair
Chris Nelson, Presidio Trust
Peter O'Hara
Jim Ponton
Kate Poole
Sharron Reackhof
Brian Ullensvang, Park Service
Tracy Wright
Gloria Yaros
Mark Youngkin, Co-Chair

OTHERS IN ATTENDANCE:

Bob Boggs
George Ford
Michelle King, EKI
Ina Shlez, Presidio Trust

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PRESIDIO RESTORATION ADVISORY BOARD MEETING

Golden Gate Club

Tuesday, October 10, 2000

7:10 p.m.

MR. KERN: Good evening everyone. This is the regularly scheduled meeting of the RAB. I'd like to welcome everyone here tonight: the Presidio Trust, the National Park Service, the regulators, community members of the RAB, and particularly any community members, or members of the public that are here tonight in the audience. Thank you for coming. Also, the Trust consultants, welcome as well.

Does everyone have an agenda? And are there any changes or modifications, or anything anybody would like to add to the agenda? I am seeing none. Let's move on to the announcements, and our first announcement is from Jim.

MR. PONTON: Thanks. Most of you know I'm Jim Ponton with the Water Board, and the announcement is real simple. I share management responsibilities on this site with Linda Dorn, who sometimes accompanies me to these meetings, and is always at the daytime meetings. And for our sake, in order to plan our work load, and to make the project run smoothly, we've divided the site basically in half on 101. I'm working on the west side on Highway 101 and Linda is working on the east side of Highway 101.

issues to deal with. And we also plan our other work loads better. So, really, nothing is different except that's how we've structured our responsibilities. We have done it through drainage basins and this seems to be the best way to deal with it. Thank you.

MR. KERN: Thanks, Jim. Let's move over to, I guess -- Henry isn't here, so it would probably be Bob. Would you mind introducing yourself?

MR. BOGGS: Hello. I'm Bob Boggs. I work with DTSC. Right now we're in the process of changing over project managers on the job. It has been Henry Chui, and I will be transitioning into that position. Henry will be transitioning out to Mare Island.

I am a chemical engineer with about 20 years of environmental experience, and I have worked out here previously when the Army was out here. So, I'm not completely unfamiliar with the site. I look forward to working on the project. Thank you.

MR. KERN: Welcome. Item C, Community Relations, Sharron.

MS. REACKHOF: What I'd like to do tonight is, regrettably, I need to announce that Ina will be leaving the Presidio Trust as of this coming Friday. I wanted to thank her very much for all that she has done for

this RAB over the last year and a half. I think all of you can attest to the fact that she's been very helpful, and she will be sadly missed by the Trust, and I know by the RAB here. So I just wanted to say that, and I wanted to thank her for the work she has done.

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(Applause)

MS. SHLEZ: Thank you. I just wanted to say, first of all, thanks for giving me a great work experience in the last year and a half. I've really enjoyed working with all of you. I wish you all the best of luck in the future. And I would also like to move on with saying I have the new RAB rosters right here, which I would like to hand out for everyone. And one of the things I'd like you to notice for additional information, at least for this transition period until a replacement is found for me, we are going to have Denise Fraga, who is the environmental assistant, really handle some of the administrative aspects of RAB questions or requests. So her contact information is listed on this RAB roster.

In addition, if there are any changes to the information list for you on this roster, I hope that you can contact Denise. She will have this information, and she will be able to change anything that needs to be changed. And a revised version will be handed out at the next meeting next month.

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So, just for the folks in the audience, the RAB roster really is an internal RAB document. It has personal contact information for RAB members, and so it's restricted to RAB members in terms of handing it out. So if you don't get one, that's why. So, that's going around.

Please feel free to contact Denise in the meanwhile if there are any questions or concerns you have. And of course, Chris, Sharron, and George are also available to

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answer questions you might have specifically or technical questions about any of our sites.

MR. KERN: Thanks, Ina. I think on behalf of the RAB, I would like to say thank you for all your help. I know particularly we have one member of the RAB, Julie, who is here almost every night, who has had a lot of good interaction with you, and it's been very helpful to her and many of us. So, thanks for all your time and effort.

MS. SHLEZ: Thanks, Doug.

MR. KERN: Committee reports.

MR. YOUNGKIN: Our regularly scheduled committee meeting was on September 26, and we met at Building 1750, second floor, conference room. This meeting covered various aspects of the ecological risk assessment. We had representatives from the EPA, Regional Water Control Board, Water Service Control, MPS, and the Trust. It was a

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very good discussion.

We had a special RAB committee meeting on October 3, in the same place, Building 1750, second floor conference room. This meeting had representatives from the agencies too, and the goal of this meeting was to determine sites that have remedies, EKI proposed remedies, and highlight sites that need further discussion of remedies. I think I'll leave it at that because tonight's presentation, I believe, covers the results of that meeting.

Our next committee meeting is scheduled for October 24th, but we're also going to discuss tonight other

meetings on Tuesday nights. And so we'll leave that open too. Thank you.

MR. KERN: Thanks, Mark. Any questions for Mark? Let's move on then to Reports and Discussions. Item 5A is George and Chris, project status update.

MR. FORD: Hi. I'm George Ford, and I'll try to give you a quick update on the work at the skeet range and the Commissary seeps. And I'm going to sit down when I do it in the hopes I will talk less, since I understand there's a lot of things to go through tonight, and I do have a tendency to keep jawing for a while.

Just to review, the RAB required excavation removal of skeet -- and we're talking about broken clay birds that

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are the actual targets in skeet shooting from the Crissy Field Rifle Institute and skeet ranges, which were down toward the western end of Crissy Field.

In 1982, the Army cleaned up the high-tide line. The Army started digging down the south along here, and worked northward towards the beach. And this shaded area shows the limit of how far the Army dug. They did closure sampling in the areas where they had been digging, and they found that there were they semi-clean. They cleaned it all up out in this area, but there were -- in the Rocky Point there was a bunch of rif raf: concrete, debris from the 1915 Panama specific excision. The Army left a little bit of skeet in the sand right in this area, and along on this side.

So the Trust inherited the obligation to do the

cleanup. In August we went out and did sampling on the beach in the area shown in green. And those -- we finished the sampling August 31. Those samples are now in the lab. They are finishing up the analysis, and are going through the data analysis process. Treadwell and Rollo are actually putting together a sampling report that will include remedial recommendations. Momentarily I will begin working on a work plan and permit applications.

Just so that you'll know what's coming, we found a little bit of skeet right in this area, right on the corner

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of the Rip Rap, and a little bit right in this area, close to the Rip Rap. So the report is going to recommend that we excavate and get rid of some that stuff. It doesn't look like a very large job, and we think it should be straightforward when we have the reports. And we will look at it, and everyone will have a chance to review it, and let us know what you think.

MR. O'HARA: Maybe this is a question that is premature, but on the east end of the Rip Rap, if you have to go -- and we are excavating. And, I assume, that you are going to take the dirt or the sand off site?

MR. FORD: Yes.

MR. O'HARA: How would you get to it?

MR. FORD: Well, what we probably would do is access the site from the west where the former Coast Guard station is. What we would do is use something like 6' by 6' trucks, and maybe a hauling excavator on tracks, and bring them down the beach at low tide. At low tide the water goes out far enough. You can get all the way out

around the Rip Rap at low tide. When we do clean this up, the transport, or any hauling we would do, we would take it down the beach, not through the dunes, and not out on the airfield because it would make a mess.

MR. O'HARA: Just as long as you can get it done in a 6-hour period.

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MR. FORD: That is something we have to look at. You don't get a 12-hour work day. You can only work when the tide is reasonably low. Actually, for that reason we did some of that sampling at 4:00 o'clock in the morning because we were looking for low tides. I'm hoping we won't have to do digging and cleanup at 4:00 o'clock in the morning.

MR. BERMAN: How far down is the skeet?

MR. FORD: Well, we sampled down to 5 feet, and we have some skeet in the 3 to 5 foot depth interval. I can't really tell you how deep it goes. It's going to be one of those things we will have to look at it while we're digging it. We're making a judgment call here, rather than doing additional sampling. It seems to be in a fairly confined area, so I think it lends itself to -- we'll put together a work plan that includes a lot of looking while we're digging. We'll dig it up and look to see what we find while we're digging, and extend the excavation as we're digging, rather than go through another round of digging. I hope it doesn't go much deeper than 5 feet.

MR. BERMAN: Has there been any sampling deeper than 5 feet? I mean, your hunch is probably right.

I was wondering if there is anything --

MR. ULLENSVANG: When the Army did their excavation in the prior map in that area, they sampled

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along the bottom of the excavation. That was one of the criteria. In my recollection, those were generally 3 to 6 feet deep. So it would be about the right consistent depth.

MR. BERMAN: So, in other words, it is not beyond what needs to be done?

MR. ULLENSVANG: The samples in the bottom were below the cleanup number.

MR. BERMAN: The skeet has been there for 100 years.

MR. ULLENSVANG: I think it's much less than 100 years. I don't recall the dates of the operation of the firing range.

MR. FORD: I don't know when it started. They finished in the early 80's. We don't think there has been any more skeet added for about 20 years, but I don't know exactly when it started. The other thing about the skeet is it's like clay pottery, cheap clay pottery. It's a fairly low density part. I really wouldn't expect to have it go to great depth unless someone was digging and burying it. Because they are very light compared to the particles of soil, they tend to work their way up.

Commissary seeps, are our p;d friend. We've been working on that. We are now preparing a bid solicitation to do the cleanup. We expect to get that solicitation out

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to the contractors within the next week to ten days. That's what we're hoping to do. We've completed a draft, actually a revised draft Interim Source Removal Action Plan in a binder that a few people have received tonight.

We're handing it out for the RAB and the regulatory agencies to review. It has about 700 pages in it, but all the fun reading is the stuff I wrote, which is the first 15 pages. So beyond 15 pages, you don't have to go there unless you're really interested in the chemical analytical data.

The next step is to select the contractor, which we hope to do towards the end of this month or the first part of November. And, actually, I will begin the field cleanup activity sometime in November. Once we go out to do that you'll know it because we will be establishing a detour on Mason Street in front of the Commissary for a month or so. We'll be out there in full force. Anybody have any questions?

MR. BERMAN: Do you have to dig in the parking lot?

MR. FORD: We have to dig in the northwest parking lot that's between the building and Mason Street. We have to dig up about half of the width of that in the area that's close to the main driveway. So, yes, we are going to take a big chunk of that planter island out with

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some bushes. That whole thing will be removed. The area

where the soil contamination occurs is 80 feet by around 135 feet east/west. So it's a pretty good size pocket of contaminated soil.

Two phases will be done. In the two phases we will basically clean up and dig up the parking lot area first. While maintaining traffic on Mason Street, we'll backfill the parking lot, put temporary pavement in, then reroute Mason Street through the parking lot, and dig in the area of the road. So Mason Street will stay open at all times. Any other questions about the Commissary?

MR. BERMAN: So far you have established there are no old storage tanks or fuel tanks there. It's just contaminated soil, no bodies harboring chemicals?

MR. FORD: We are fairly content there are no tanks left. We are expecting, when we dig, to find some abandoned pipe lines. Where we have dug before, we have found abandoned pipes. We think we will see more of those. When we see those we will cut them off, and drain them, or remove them. We will try to do a thorough job. We won't leave anything in there that would cause further problems when we open it up with the marsh.

MR. BERMAN: So, just to understand the history, probably these were old fuel lines of some sort that were retained, immobilized for some reason, and they

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stored fuel for a while and then dissipated out into the soil? I'm trying to create a kind of a story of how it all happened. And so I'm making this up on the fly, but I was wondering whether you had thoughts on this and had come with something.

MR. FORD: I think you've doing well making it up. The model I've had -- the mental model is that most of the contamination probably does result from abandoned pipes, although the fact that -- we haven't mentioned in this meeting, there was an above-ground storage tank.

I believe it was a 45,000 gallon capacity that was there through the late 40's or early 50's, almost in the middle of this area of contamination. And it's not clear to me whether that tank was used as sort of a reservoir and fed pump islands at some distance, or whether they actually dispensed out of that tank. But an above-ground tank of that size sitting the middle of this big pool of contamination, I am sure they had to be related.

We may not be able to figure out the sequence of how everything happened. At this point we know where the contamination is, so we're going to clean it up. And the sequence of events that led to the spills, I think it probably was multiple spills. That may always be a mystery.

MR. NELSON: Hi. I'm Chris Nelson with the

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Presidio Trust. Most of you know me. I am the project manager for the remediation program, and I'm going to bring you up to date on a couple of projects we're working on. I will also be talking to you later about what Mark was discussing earlier.

Some of you may remember, I've mentioned the funnel, which is what I use to describe the dissemination of information to the RAB and the agencies for the

Feasibility Study for the Main Installation sites. And there's a big file up at the top of the funnel, and I am trying to shove some stuff through it. What you are going to see are some advanced chapters, which are closely related to remedy selection and discussion of remedies. It is important to give those to you in advance so you can put it in perspective.

We have received these chapters and are reviewing them. Also the Park Service is doing concurrent review. When we get our comments together we will present them to the Park Service, and we will sit down with our consultant, and will discuss the comments with them, and incorporate them into this chapter. By the end of the month we should see those 4 chapters coming out.

The first one is on the ARARs as they have been discussed and defined to date. The second, Chapter 5, will be on Risk Based Preliminary Remediation Goals, which lays

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the ground work for how we came up with our cleanup numbers we're proposing for human and ecological health risk. The next chapter, which we may be able to get out in advance because it came to us earlier, is the background metals for a much awaited discussion on the soil and water numbers.

And if we get that chapter out before they other three, we'll try to give you some time to review it, and schedule a meeting to talk about where we came out on the picks on these background metals numbers. And the last chapter of these four chapters I'll be giving out is Chapter 7, Remedial Action Objectives, which moves us closer to the final proposed cleanup number for human

health need and the environment. And so look for these chapters within the next couple of weeks.

The other thing that we have gotten recently, and are reviewing, and planning to issue by the end of the month is an appendix to the Feasibility Study. All of the data that was collected this summer at the Main Installation sites is put together in tables, and figures, and summaries. And we're currently reviewing that, and that will answer a lot of the questions we put forth in the Field Sampling Plan that came out in July when we implemented that work in July and August of this year.

If you recall, we mentioned we are going to do a responsiveness summary to all of your comments, all of the

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public comments, and agency comments on the Army's final Feasibility Study. And we currently have an inhouse draft copy of that document we are reviewing. And we expect to get that out by mid-November. With that document we hope to give you a preview of where we stand on the remedies with some of your choices you made, and some of your suggestions you made. And so, look for that in about a month.

There are also some additional Presidio-wide documents that I'm working on. I issued the draft Contingency Plan to a few RAB members who normally receive documents, and the agencies, DTSC, and the Regional Board. That plan has been under development for quite a while, and we hope to issue it as a draft. If we could get comments back within the next 35 days -- if you look at the cover

letter, it indicates we will be using it as an interim document.

In doing construction we intend to utilize the cleanup numbers in that document and procedures for remediation and clean up as it's listed in that document. In the construction we are going to do the Public Health Service Hospital. There's also a field sampling implementation plan we will be issuing in about a month that covers the sites, where we did the sampling at the Public Health Service Hospital in '81, and in July.

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And then lastly, the Presidio-wide Quality Assurance Project Plan should be issued by the end of this month. We've been incorporating comments, quite extensive comments from EPA and other regulatory agencies. And we hope that when we send that out with the Responsiveness Summary attached, we will have gotten everyone's comments incorporated.

We also have our base-wide groundwater monitoring program I've talked about before. We're going to be -- we issued a contract, and we're going to be putting out a report for the last round of sampling, which occurred in June. That should be coming out in about a month. And we anticipate doing quarterly sampling at all of the sites. In early December, before we do that, we have to get a task order to place with our consultants. And we have to have them issue a health and safety plan. And they will go through the agency review and RAB review. We hope to be out there doing the Presidio-wide groundwater starting in December. Any questions on any of that?

MS. CHEEVER: Well, this list of documents makes me give a request. Would it be possible when you have documents like this, to issue maybe an email to us saying that these documents are available for review because there used to be such notification, and I think there isn't right now. For example, if people wanted to

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look at it or comment on it, I am sure. And then how would we get it if we wanted it? It would be nice if the procedures were made clear.

MR. NELSON: Absolutely. We will be glad to implement that.

MS. CHEEVER: It would be great if we had a regular email once a month or once every two weeks saying, "These are documents we've done and they are available."

MR. NELSON: It's kind of coincidental that a lot of documents have been released on RAB meeting days, but I would be glad to put out emails to that effect.

MR. BERMAN: Is the draft Contingency Plan available electronically?

MR. NELSON: The word files, which is the text of the document, are the figures, which are somewhat extensive are not at this point. The final plan would be available electronically on CD or something to you. At this time there will be a copy in the library. If anyone else wants a copy, please contact me and I can make that available.

MR. BERMAN: In response to Ms. Cheever's request, would it be possible -- and this maybe difficult,

but would it be possible to find out what is available electronically and what is not because when you get an email and there is a report you might want to look at that

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information too. If you indicate how to get it electronically to get a quick look at it because as we all know, a trip to the library takes considerably more time and preparation.

MR. NELSON: Sure, I will do that, no problem.

MS. SHLEZ: We're moving on to sort of the meat of our discussion tonight. And first let me ask, does everyone have a copy of the matrixes? I mailed them out by both email and regular mail, and to folks who attended last Tuesday's meeting. Does everyone have a copy of the matrixes that was given out last week and mailed out, as well as the proposed schedule that was emailed and mailed out? If anybody doesn't have it, please raise your hand, and let me give you one. I have some extra copies here. I tried to minimize the amount of papers, so if you can only take a copy if you don't already have one. It's the same information you would have gotten by mail or email if you attended the meetings last week.

We have a lot of things to discuss tonight, and what I'd like to do is start out by recapping what happened last week at two meetings last Tuesday. We had a meeting on Tuesday morning with RAB community members and Presidio Trust staff. And what we discussed is, really we compared two separate, what we called matrixes.

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The first matrix was a Trust matrix. And the original information in that matrix has names of all the sites that are being looked at in the Main Installation Feasibility Study, as well as the Public Health Service Hospital ROD Amendment. And we looked at each site and how those sites were initially addressed in the 1998 Alternate Remedy Document. In other words, what kind of recommendations were made in that document.

And then we also looked at sort of what the current thinking is from the Trust based on sampling activities that happened this summer, reviewing the data in the various databases that we were compiling. And we sort of compared that against the original recommendations from 1998. We looked to see where those recommendations stayed the same, where they might have changed a little bit, or possibly quite a bit.

We also looked at a matrix that was developed by the RAB community members. And that information did a similar thing. They compared, basically -- not so much compare, but looked at original 1998 Alternate Remedy Document, and also tried to give an idea of which sites would probably need a little bit of discussion, possibly quite a bit of discussion, or perhaps not a whole lot of discussion because the remedy seemed to be very appropriate to the RAB community folks.

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So then what we did, we went site by site, and

summarized what we will do this evening. And we tried to come up with an approach in how we can address, and will discuss these sites over the next couple of months before our final Feasibility or draft Feasibility Study will be issued, and before the draft ROD Amendment will be issued.

So, the results are on the matrix we just handed out, and the one you read by email or mail last week. And if you can look at that matrix, what you'll see is that it was divided very much the way that the Alternate Remedy Document was structured. We looked at planning areas we divided the sites up by planning areas. We have a column with the listing basically of the kind of alternate remedies that were established in 1998, the current thinking from the Trust in terms of the way we're heading, and we also talked about how much discussion each of those sites really might need as well because the RAB had sort of divided themselves before by watershed areas. We wanted to give folks an idea of where sites lay, and which watershed the site was by. I know a lot of folks got familiar with which watersheds were by which sites and we kept that aspect as well.

So what we're going to do tonight, at the request of the RAB community folks -- actually I should back up. We had a second meeting last Tuesday evening. And at that

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meeting we also had the Regional Water Board and DTSC representatives in attendance, along with RAB community members, the Trust, and staff consultants.

We took a second look at this matrix, and we looked at a proposed possible schedule, which is this handout,

which you probably also got last week, if not tonight. And what we did is we tried to come up with an approach and a schedule for how we can best discuss these sites to make sure that everybody's concerns are addressed, and everybody's questions are addressed, so at the end of the day we come up with remedies that folks are comfortable with.

And that's what this is, and we're going to be discussing in further detail tonight terms of meeting dates et cetera. So what we hope to do tonight is at the request of RAB community members. We have a lot of sites to go through. What we thought we would do is literally go through each site that you see in this matrix and give a brief overview of what that site really is all about.

And knowing that in a lot of these sites there is going to be further discussion about them, in some cases quite a bit of discussion about them. And I know there will be questions that will come up tonight, but for the sake of getting through the information, if you have really substantive questions, or things that you really think need

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a lot of discussion, maybe hold on to those thoughts. And as we get towards the end of the meeting, and we talk about how we are going to be discussing these sites in the future, which dates we're going to discuss which sites, maybe you can think about what kind of questions you might have, and how significant the questions are in terms of length of discussion. And we hope that you can bring those kind of things to those meetings, as well as maybe give us

a little of advanced warning, so to speak, about what kind of issues you might have regarding those sites.

So, we're going to be going through a lot of information tonight, and we hope you can bear with us as we do that. And maybe if you have -- knowing that a lot of these sites will need a lot of discussion, if you can hold some of those kinds of thoughts until those meetings where we have those kinds of discussion on specifically those sites, that would be terrific. So without further ado we can get started. I think Michelle King from EKI will be talking about some of the first sites here.

MR. NELSON: I think what we're going to do is have Michelle and I split up the labor. When Michelle is done we will take a break and come back, and I'll finish up.

MS. KING: Okay. As I na said, the way we divided this up is by planning area from the General

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Management Plan Amendment. And the Feasibility Study itself is going to have the same order of sites by planning area. So hopefully you'll getting used to seeing the sites in this order. And what we decided to do was give an overview of a little bit about what the site was used for, what the key issues are, and then legally what the remedies are from the Alternate Remedy Document compared to what we're thinking about them now with the information we have today.

And so we'll start out with the Main Post. And you can see there's three sites: 215, sewer lift station No. 2, and former Building 609. And 215 is over here. The

sewer lift station is underneath here, and here is 609. In the former Commissary building, starting with 215, there were two 10,000 gallon underground tanks of unknown contents removed by the Army in the late 80's. And there was no report of either prepared, or available documentation of what was found when they removed these tanks.

We don't have any soil sampling data. When the tanks were removed, the Army did very minimal investigation. We don't know if there were any releases tied to the tanks except that some boards were put in 15 or 20 feet away from the tanks. So, we're basically suspicious there were some releases. There has been

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groundwater monitoring ongoing.

And based on the monitoring data, there were no petroleum hydrocarbons at the site, but there have been Chrome 6 levels detected repeatedly there at levels less than drinking water standards, but nevertheless they were present. And so, since the Army did its RI and FS it's become apparent that the Chrome 6 is occurring. And I think we talked about this previously at the Regulatory Agency meeting. And the DTSC has concurred with this general finding.

We need additional characterization of the soil to determine if there was a release from the tanks when the tanks were pulled. And if there were significant impacts, then that's where we will be excavating. And with regard to groundwater, the Chrome 6 was the one lingering issue.

The Alternate Remedy Document said to look for hexavalent chromium. We didn't think it was tied to the site.

Based on what we see, we think that the levels of Chrome 6 are consistent with naturally occurring levels. We are recommending no action for groundwater. This site is a some discussion site. And I think at the last meeting Doug indicated that he just wanted to have a little more time to talk about some of this hexavalent chromium.

So moving on to Sewer Lift Station No. 2.

MR. YOUNGKIN: 215 is right where Burger

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King is today.

MS. KING: So we will drill some holes by the take-out window, I think. I believe the tanks were on the side where that drive-up is.

So Sewer Lift Station No. 2 is basically a lift station for waste water. And there was a concern that perhaps these lift stations, numbers 1 and 2 which are down in Crissy Field, potentially overflowed during high stormy weather. So the Army did sampling to look for metals that would have been released. There have been overflows there, but there were no COCs. And this is consistent with the Alternate Remedy Document. No further remedial action is needed and no discussion is the suggested method.

Obviously, if people have specific discussion about the sites, the Trust is welcome to hear those questions, but I think the idea is it's a pretty straightforward site with minimal issues.

Now we have the former Building 609 area, which is the former Commissary Building. And Mark actually did

quite a lot of research into this site. And what the Army was focusing on in the remedial investigation was there was a reported spill of pesticide in the old Commissary Building. And we don't really know how extensive the spill was. There was not much documentation on it, but when the Army put up a new Commissary instead of the old Commissary

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-- it seems like it's a silly thing, a little indoor spill, but really to close the loop on the site, the Trust is proposing to do sampling in the right spot. If there is a problem we will excavate. We are not expecting to find anything there.

I think partially about the whole Commissary site, what Mark uncovered is all the motor pool activities tied to George's discussion. And the Trust will be discussing that in the Petroleum Program. It's not being brushed under the rug. That's the main post.

UNIDENTIFIED VOICE: What was the pesticide?

MS. KING: I don't recall to be honest with you.

UNIDENTIFIED VOICE: Does anybody here know? Does it distinctly appear within days? Some stay for 50 years.

MS. KING: We can go back. It was in -- reportedly the enhanced preliminary assessment is where they reported it. So the Commissary former Building 609 is a no further discussion site unless people have questions.

MS. SHLEZ: Sir, I want to add if you would like, during the break I can take down your contact

information, and I can get back to you and let you know what that pesticide was, if we can find that.

UNIDENTIFIED VOICE: Fine. I'll give it to

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you.

MS. KING: Okay. So now we move up into the Fort Scott area. And there's quite a few sites at Fort Scott. We have Battery Howe Wagner, which is a battery area just south of the battery, which was excavated into Serpentine bedrock there. This is the 1244 building area here, which is actually currently the site of -- I think there's some plant nursery at 1244 right now. 1245 is a tiny -- it is building next to 1244, which was a former flammable storage building. We have 1351 over in the western part of the planning area; 1369, a former firing range; and up in the north end, 1388, which is really a yard area.

So let's go through each of these sites. First is Battery Howe Wagner. This is a site that I think is near and dear to many of the RAB members' hearts. It's one of the more significant sites in that it was a fill area. As I mentioned, the Army buried the battery, and there was a section that was dug out into the Serpentine. I think what they did was demolish the buildings in this area, and fill the hole with soil and building debris.

What we found in the soil are low levels of metals, which are slightly above background concentrations in soil. But really there are aren't any other significant issues that have been identified in soil. What was found in

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groundwater petroleum hydrocarbons and tetrochloride that was detected. And again, Chrome 6, copper, and selenium were found. And the Chrome 6, like these others at other sites, is believed to be naturally occurring. And copper and selenium are at low levels, but are driven by very low cleanup levels because there's freshwater seeps just downgradient of the battery.

And to protect freshwater aquatic life, there are very stringent standards. The big question was is there carbon tetrochloride and what was the source. And this summer we did an investigation looking at one of the buildings immediately upgradient of the Battery Howe Wagner, 1233. We thought this might be a source. We did find carbon tetrochloride at .7 micrograms per liter in the drinking water. This is above the drinking water standards. They are very low concentrations.

What it showed was the fill at the battery was not responsible for the carbon tetrochloride and that the carbon tetrochloride appeared to be coming from some unidentified source upgradient. So this approach was consistent with what was discussed in the Alternate Remedy Document, where they said to investigate for the source of carbon tetrochloride.

And if the source of carbon tetrochloride is not in the battery, just a permeable cover will be okay to protect

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people from contacting any building debris, asbestos, and

such that might be in the buried debris. And then we will do a monitoring of groundwater. So the approach is very consistent with the Alternate Remedy Document.

What we have is a map here. I was talking, but these are two of the new wells we put in, and this Building 1233 is the one we thought might have been the source of the carbon tetrochloride. That well was clean. This well over here is the one that had the 2.7. And what we think the groundwater is doing is starting at this end and flowing through here. This is an old valley. When you look at the historic topographic maps the water could be flowing from these old buildings. I think this was a gas station, so there are areas where there could be potential sources for the carbon tetrochloride.

We have a couple pictures of the battery because it's kind of a hard thing to see when you are out there because there's a lot of trees, and it's covered with grass. And really the battery is covered and there isn't anything that's exposed, but you can see this mound. Over here is the old battery building that was covered up. And this is now -- where this tar is -- we're looking from that side over to the hillside where the battery sort of sticks up.

Now we get into the series of all the different

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little buildings. Building 1244, as I said before, was the building with the plant nursery. And this building had quite a extensive and very wide range of uses from printing and film processing to various activities associated with motor vehicle repair.

And the Army only did very limited sampling just for lead in this sand-filled trench. But when we look at all the things that happened in that building in that area we thought there could be much more significant problems. And actually this was another thing Mark had done quite a bit of research on for this particular site.

And so right now lead is a chemical of concern. It was detected above cleanup levels. The Trust is proposing to do additional soil characterization, and to excavate the lead impacted soil, and excavate any additional soils that may require it based on that sampling. And in terms of discussion, this site is a no further discussion site because I think we are in agreement with what the issues are.

MR. BERMAN: A minor point, back to the Chromium 6 issue. In an area where there was printing and film processing that's, I think, an area where there might have been use of chemicals that could contain Chrome 6 as well as in the automotive paint shops.

MS. KING: Paint shops, definitely.

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MR. BERMAN: But it would be interesting to look at a few buildings. The work that was there might contribute and produce some Chrome 6. It would be interesting to see if the levels are any different than what we find elsewhere, and also to look in the immediate areas where there is some reason to believe that Chrome 6 might have been part of the chemicals used.

MS. KING: There is, yes. Within the

battery itself, it's not like you see the same concentrations consistently across the battery. As I mentioned, there was this valley that ran from here. You could walk to the site. There's these houses that are a little bit higher than the road, and 1244 which is down here is actually in the next little drainage.

So it's unlikely that any water from 1244 would actually be migrating over towards the battery because it is in its own drainage. When we looked at this project before we were curious about the same thing, could that row of warehouses out there have had uses that would be a source of the Chrome 6. And looking at the topography of the site, it is highly unlikely they would be.

If we look at the upgradient direction of hexavalent chromium, we don't see direction like we see in this new well up here that was installed. We'll have more time to discuss these types of issues at committee

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meetings, but it's a good question.

1245, as I said, this was a tiny little building that was used to store flammable materials. And the Army did a very limited sampling just outside the little drainage pipes that went outside of the buildings. If there were spills in the buildings there, it would have drained out onto the soil next to the buildings. They didn't look for that.

Right now we don't know of any COC in the soil, but what we're proposing to do is some groundwater characterization, and collecting one sample because the types of solvents that could have been stored in the

building may be more mobile. And we want to make sure both soil and groundwater are below action levels. And if there is impacted soil, we would excavate it.

We are not anticipating to find any, but I think it would help close the loop. That is more than what we had recommended in the Alternate Remedy Document. We felt to be thorough it was the right thing to do. This was a no significant additional discussion site.

1351 is a vehicle maintenance shop. There was a degreaser, waste oil storage, and wash racks. There was an underground tank and cadmium there. There are petroleum-related issues that the Trust will be addressing in the program, but there were metals. Cadmium, lead, and

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zinc are COCs in the soil, and the proposed remedy was to excavate the impacted soil.

And we think the source of the metals was probably from painting and maintenance of vehicles. So Sam, this is a place where you say there could be Chrome 6, but there wasn't any high levels of chromium found at this particular site.

MR. ANDERSON: And would that be upgradient of the possible source of the current.

MS. KING: It's possible.

MR. ANDERSON: Actually in the topography here, where is the --

MR. NELSON: The high point is essentially where the playing field is, and it goes off to the west. The playing field is in the center. There is 1369. From

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there it is sort of flat, and anything from there this way,
and anything on the other side is --

MS. KING: We are suspecting these
buildings.

MR. NELSON: There is probably something in
that area.

MR. ULLENSVANG: I'm sure the groundwater
is, but it could be it's on the curb.

MR. NELSON: There is definitely something
weird going on with the groundwater. We put in three

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wells. There was water in two of them, and there was no
water in one. And also in a previous location where the
Army drilled, I think it's GWOC -- and that's pretty close
to where we drilled this summer. The groundwater is
curious out there.

MS. KING: You can see where the drainage is
south of 1244. So the contamination of 1244 would go this
way.

MR. ULLENSVANG: One thing to note about the
buildings like 1351 and 1369, are they are a long ways away
from Battery Howe Wagner. I think that may be a closer
thing. It would have had to be a fairly large spill to
make it that far.

MS. KING: The concentrations are low. I
think the first step is to look at historical uses
immediately upgradient of the battery first, and if the
sources are consistent with solvent use. That is what the
Trust would investigate.

1369 was an indoor firing range. And my

understanding, the way it was set up is there were lead panels of lead used as the backstop for the bullets. And then there was a trench underneath it filled with sand. So they would fire into the targets, and then the bullets would drop down into this pit. So the Army removed the lead sheets, and soil, or the sand, and lead-impacted

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material before doing any sampling. And then they sampled right outside the building.

Again, there was a drainage line that went outside the building, and there were no COCs in the soil. So this as a site where we are consistent with the Alternate Remedy Document by saying no further action and no significant discussion needed as far as we know.

Building 1388. This is the north end of Fort Scott. And really the building is highlighted, but the site was sort of a parking lot staging area where there were two above-ground tanks. There was vehicle maintenance there and halluck fluid containers. The Army sampled areas that were suspected that were stained. They didn't find any COCs in the soil. This is a no further action site, consistent with the Alternate Remedy Document, and also no significant discussion. Now, we're on to the Letterman complex.

MR. BERMAN: Quick question, I don't know if it's appropriate. There are other buildings in the Fort Scott area, which are not in the original FS. And it is just a question. Where do you find information about whether those buildings were, or the areas around them,

were looked at, and what is the reason they are not in the FS? Is it because they are so clean there is no reason to pay attention to them, or is there some other history here?

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It's outside of the realm of what you're doing here, but as a public person concerned about Fort Scott, I am seeing you haven't covered all the buildings that are there in this plan.

MR. NELSON: Were these sites -- do you recall -- I don't think these sites were in the preliminary assessments. So a lot of the sites we were carrying were identified in '89. What happened, I believe, in '99 -- which was a little before my time -- there was an additional discussion and data gathering. And there were a number of sites identified. I don't know whether or not those sites at Fort Scott were part of that.

MR. ULLENSVANG: There were some sites.

MS. KING: 1233 was one of those buildings.

MR. NELSON: We were talking about this today when we had our meeting before we decided what we were going to talk about. We said, "We have the ability to investigate the source and determine what the source of the carbon tetrochloride is through that group of sites. And so, although we feel the carbon tetrochloride is not associated with Battery Howe Wagner and won't be dealt with through the Battery Howe Wagner remedy, we're not pushing the issue away.

We have a schedule. We have these sites identified, and we're going to start looking at those sites

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in time. And the carbon tetrochloride near Fort Scott will be investigated. As far as information for those sites goes, whatever is in the archives is available. And whether or not there are any reports that came out, I don't know.

MR. ULLENSVANG: One thing for the new members, there was a process the Army started to identify potential sources, and they have been screened down to the current list. There have been some sites that were looked at. Some were dismissed for a variety of reasons. I think Mark was one of the spearheaders of that to reopen the window and make sure that there was a broader screening.

Mark did a thorough search through the park archives, and from that came up with several hundred citations where records show there might have been a use of a hazardous substance or material. The Army did some cleaning of that, and repeated some of the work to verify it, and went a little further to try to prioritize it.

Chris mentioned 1233 was one of those that came up as a potential hazardous material, and that sparked the investigation here. And what Chris was saying is that those will then be revisited at a future date in the program. There is that opportunity. The Army windowed down, but it has also been reopened. I'm sure if additional information came to light through someone's

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information, record search, or other ways that would be a

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process to bring these back in.

MR. BERMAN: I'm appreciative of that, but there's still no record that says, "We looked at 1233." And I don't remember all of them. There are seven to ten other buildings in the Fort Scott area, all of which there is no place to go. Maybe Mark has a document where he can say, "Yes, we looked at this building and there was nothing there."

It's just that there is a slightly uncomfortable feeling that you've dealt with it very well with a certain numbers of areas and buildings in the Fort Scott area, and then if you go there and you look at a detailed map, you see all these other things. And it's not like a complete document that says, "Here we have Fort Scott" -- you eliminated 16 buildings, and here are the rest in the FS, and here is what we're going to do. It's a slightly incomplete story in terms of the geography.

MS. KING: There is a building by building survey that the Army does when they are transferring a facility. And so they do try to document information on what might have gone on in the buildings to say it was acceptable for transfer. That is one document that does broaden the look.

MR. BERMAN: It would be nice to say in your

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chapter on this that there are X number of buildings in this area here, and the FS deals with a subset of these because the others have all been looked at, and there is nothing there.

MS. KING: We can't say that.
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MR. ULLENSVANG: I think part of this is coming in from how the Army had this set up. There are other programs they divided into following this portion of the process. There's a base-wide cumulative document that tries to bring the pieces together into a concise manner.

MS. KING: If you start looking at the petroleum program, a lot of tanks in the Fort Scott area -- buildings like 1351 are getting looked at through the petroleum program, so this is not the only window to look at Fort Scott.

MR. BERMAN: I understand that. It's just that no where -- it would be nice in the address of this if you said that we're addressing a certain number of buildings, which is not the total complex because someone who is reading this for the first time, who hasn't taken the time to go over it and look at it, would think you are covering all of Fort Scott when you really are not.

MS. KING: Yes, okay. Letterman. Sites at Letterman are Fill Site 6, which shows variable outlined areas basically in this area. When the old Letterman

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Hospital was torn down, a lot of the debris was in place. And so we don't believe this fill site is this large, big, continuous area. It's really more localized to specific spots where the buildings were torn down.

Then we have 1507, which is a building that has a sump in it. A very small site 1151/1153 is a former storage area, and 1167, which was a furniture shop. So starting with Fill Site 6, as I mentioned, this a site

where building demolition debris and soil are believed to be disposed there. And as the map shows, it extended over a large area. But in general, the area of debris in the soil is landscaping from other buildings or from such improvements.

There is one mound there that doesn't look like it is maybe covered as well as other parts of the sites. Based on the data we have, there are no COCs. We did detect some chromium 6 that are consistent with 215. There are levels of selenium and some benzene in the northern part of the site, which is likely tied to the 1065 petroleum. We don't think it's associated with the fill.

So what we're recommending, which is consistent with the Alternate Remedy Document, is a soil cover over the site. And we're looking at this mounded area with the assumption that it is adequately covered by the parking lots, buildings, and nice landscaping. We would include

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controls to protect the cover, which is consistent with the '98 document.

And the constitutional controls wouldn't restrict the public access to the site. It would be a case if someone wanted to do excavation or utility repair they would have to restore the cover. And the cover would get inspected periodically, and so on.

And, in addition, we would include monitoring for groundwater. This is a site where it is slated for significant discussion because I know that some of the RAB members have concerns about groundwater in the future that might run through the site. Just so you can see a picture

of the site, this is that mounded area. When you are on Lincoln Boulevard, there's a little bridge you go over, and you can see it off to the right. And then, this is the well we installed right in that mounded area. So this is the part of the site where we would add cover. This is the part we are talking about.

Building 1057. This is a concrete vault. It was next to a maintenance shop, wood shop, and medical research facility. And basically, there was sediment in this that the Army sampled. There was elevated cadmium in the sediment, and they took a sample from underneath the sump. No COCs were found, so there is no real threat to the environment. So the Trust will remove the sediment as part

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of the normal maintenance activities. But in terms of having a remedial action, there is nothing that is required. This is consistent with the Alternate Remedy Document.

Building 1151/1153. As I mentioned, this is a transformer pad and transformer storage area. The Army did remedial action in '97, for the PCBs, and there are no COCs remaining in the soil at the site. So no further action is needed, which is consistent with Alternate Remedy Document. This is another site where there is no need for significant discussion.

The last site, Letterman 1167 area. This is a building where there was former furniture manufacturing with painting and staining and such that went on there. Arsenic and Lead are the chemicals that were detected in

behind the building. In 1998, when we did the Alternate Remedy Document, we had recommended doing additional characterization.

Part of the reason was at that time there was one lead hit that was just below or very close to the cleanup level. We suspect there was a release, but we couldn't hang our hat on it, and say, "We have levels above the cleanup levels." Since then the cleanup levels -- this lead level is now clearly above the cleanup level, and so it's very apparent now we do need to do some excavation

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work out there. And there is no need to try to characterize it. We might as well go in and dig it out.

This one we have listed as some discussion, and the idea was to clarify what I said. So whether or not we need to develop into it more, we can. That is what's underlying the change.

MR. BERMAN: The building has actually been destroyed, right?

MS. KING: 1167 is still there.

MR. NELSON: You are thinking of the warehouses on Doyle Drive.

MR. BERMAN: Part of the warehouse complex.

MR. HULTGREN: Are any of these sites -- what about the site of the Lucas Project? Has that been investigated?

MS. KING: My understanding was that the Park Service had done a phase 1 site assessment, and some groundwater sampling. And Lucas, I presume, also did its own phase 1 for the site. So I don't believe anything came

out of this as being suspicious there.

MR. FORD: So far.

MR. NELSON: There has also been quite a bit of drilling that was done that George oversaw.

MR. FORD: Lucas has been doing their work, and so far they haven't identified anything that causes

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them to run screaming in the other direction.

MS. KING: One thing I think is interesting is that Lucas is planning on excavating a lot of soil. Part of the Contingency Plan that Chris handed out tonight is to address what you're driving at like what if they run into something during construction that you don't find in a phase 1 site assessment. So the Contingency Plan is intended to address that sort of thing.

Cavalry stables. There are three sites in the cavalry stables: the building 662 area, which is one of the former stable buildings that was used for various motor vehicle maintenance. We have the 669 area, which is right next to former animal incinerator also underneath Doyle Drive. And the 680 area, which was a place to store old transformers.

So starting with the 662 automobile service area. There were some underground tanks, above-ground tanks removed by the Army, and also stained areas that the Army sampled. And as part of the RI, they found elevated cadmium and lead right next to the area where the tanks were removed. And they also sampled groundwater downgradient of the site. And there were no COCs in the

groundwater.

We're recommending to excavate the impacted soil. In the Alternate Remedy Document we called it a no further

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action site because we knew that the metals impacted soil was right near where the tanks were. We thought as part of the tank pull, they would have removed the soil. But at that time the tank hadn't been pulled yet. So between '98, and now, we now have that report with a map that shows where the tank excavations were, and indeed the samples with the high metals were just outside the tank area. So we propose to excavate the impacted soil since it wasn't done by the Army.

Building 669 was a former incinerator with ash disposed on adjacent hillsides below the incinerator. The Army actually never did any sampling on its own of this site. They looked for an ash layer and said there wasn't enough ash to sample it. CalTrans did quite a lot of sampling as part of its seismic-upgrade staging areas. And they sampled around there, and they found elevated lead in the area where this ash might have been disposed.

And so what we are proposing to do is additional characterization of the area. They looked only for lead, CalTrans did, so there could be other chemicals, other metals, and PAHs. And then we're proposing to excavate the soil. That's consistent with Alternate Remedy Document. CalTrans did do excavation work to remove lead-impacted soil from Doyle Drive. It will be interesting. The Trust doesn't want to excavate stuff that should be CalTrans'

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problem if they get to far north.

MR. O'HARA: This was an incinerator? What was incinerated?

MS. KING: They said it was animal carcasses.

MR. O'HARA: Would you typically expect to find lead in animal carcasses?

MS. KING: Who knows what they really did. We don't know what they burned in the incinerator.

MR. ULLENSVANG: It implies more of a case where you would pick up metals out of heat.

MS. KING: The sampling they did for CalTrans was a grid. I think they were ruling out in 50 or 25 foot increments from the Doyle Drive aqueduct, and 2 feet below ground surface. It seems unlikely that the -- and then, I think, maybe 175 or 200 feet from that. That's far away, and it's at depth. So it is sort of suspicious that it's actually not. And then as you move north, away from the incinerator, the concentrations go down and come back up a bit. There does seem to be a spacial trend.

680 is a former electrical equipment and transformer storage area. This was another place where the Army did removal for PCBs. We'll look at what's left. It's all less than cleanup levels. This is a no further action site, which is what was recommended in the Alternate

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The east housing area. Included in the east housing area are some of our favorite sites. We have Landfill E, which is a large landfill where there is a ball field, and some parts of Fill Site 1, which is also a flat area immediately adjacent to some residential units, and El Polin Spring. They are at the head of the watershed for the Tennessee Hollow enhancement project.

These are sites where we know we will be having a lot of discussion. But just to give the overview, Landfill E was used for disposal of debris and municipal waste. I think of all landfills it is the one we see as the most landfilly landfill, to be descriptive. My understanding from the trenching that was done, none of the landfills look like typical landfills. It's a large 110,000 cubic yards of material. In the landfill high levels of metals, PAHs were found in the fill material. And then in the groundwater we find metals and some petroleum hydrocarbons.

And then in the seeps themselves, since the 1998 document, more extensive seep sampling and metals were found in the seeps. In many cases the metals found are fairly low levels. There are a few exceptions, and nickel is one of them. Generally with the metals it is hard to point fingers at them being significantly elevated, but

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because of the sensitive habitat of the freshwater environment, it has very stringent cleanup levels.

What we are proposing is very similar to what we proposed in the Alternate Remedy Document, which is a low permeable cover to monitor groundwater to the landfill.

Gas collection. There has been some methane gas detected in the landfill, and then to the divert surface and groundwater around the landfill. This is a slight change from the Alternate Remedy Document when we have to ask if the idea is maybe more effective to divert groundwater around it, so it doesn't ever contact the waste material. And then you're not diverting what would otherwise go to Tennessee Hollow and then to the ball field, and would restore Pop Hicks Field with a cover. That is a preview of it.

MR. ANDERSON: Gas collection around the landfill, how would you collect it? Are you talking about a flare?

MS. KING: There is not enough landfill gas to support a flare. Actually what we're looking at is support of a biotreatment system where you bubble it into soil. And our landfill and gas expert will help us with this project. My understanding is you have sort of a gravelly layer, and they pipe the gas through the piping, and funnel it over to a soil area, and it's diverted by

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something. It's a passive system.

MR. NELSON: It is a layer of fill. So here is a picture of the ball field at Landfill E, and then just some more pictures. This one is at the bottom.

MS. KING: Fill Site 1 is the landfill used for disposal of building debris and landscaping materials. We're estimating about 35,000 yards is waste fill. And one thing we observed this summer in the trenching operations

is -- I think some of the RAB members were with us in the trenching -- we found as we got close to the houses right next to the site -- that we actually thought might have been on top of the site -- we found that it was really clean soil in that part of the site. We didn't find any COCs in that area.

And so it looks like part of the site is actually just soil. And as we moved to the western part of the site, we did find some observable debris with rock and asphalt, concrete, bricks, metal, stuff that was more of concern than in the western part of the landfills. We have pictures. So metals are the chemicals of concern. And then we see metals and petroleum hydrocarbons.

The remedy is to excavate the landfill and monitor groundwater, which is consistent with the Alternate Remedy Document. And here we have a site where I think everyone is in agreement with the remedy. We have it as a some

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discussion site. We thought people would be interested in hearing about the sampling that was done, and because it is in an area that people have significant interest in, we thought it did warrant some discussion.

So here is a picture of the landfill looking to the east. And so, here are the houses we thought perhaps the landfill might have extended under. And you can see we did some trenching right near the houses. And you can see by the piles that it is soil with not much else there. So, we're pretty comfortable and confident that the landfill doesn't extend to the houses at this point.

The last site is El Polin Spring, and the spring is

located downgradient of Fill Site 1 and Landfill 2. Basically metals and petroleum have been detected in the springwater. There are no known source areas that are tied to the spring itself that would be the source of these chemicals. What we believe is, if you address the Landfills upgradient, that any migration to the spring would cease.

And so, it's really -- there is no specific action tied to the spring. There would be monitoring done that would be part of the removal action for the surrounding Landfills. It is consistent with the Alternate Remedy Document. I think with that we are to Crissy Field, and this is where I will hand it off to Chris.

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MR. DOWNING: I was curious. In the summary page you have Landfill 2 included there, but it is not part of the discussion.

MS. KING: We have that over in the forest. Landfill E is on the forest because it is in the housing. We put it in there when we did the original classification. That's the way it's always been.

MR. NELSON: It comes up on Page 3 of the the matrix on the Presidio forest area.

MR. BERMAN: For years this was very actively used by the Army and by other people. Of course, now it is abandoned and overgrown, but I think for a long time there it was a very actively used recreational site. I wondered if there is any reporting of any health incidents of any kind that might have been associated with

all those years of use. I think there's like 20 or 30 years where it was actively used for various kind of ball games, etc.

MR. NELSON: I'm not aware of anything.

MS. KING: I would be surprised if there were any.

MR. BERMAN: It's just that probably one of the most contaminated of the landfills in the Presidio was used aggressively for activities, and yet we know of no -- there's no reported health hazards or anything associated

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with it. Not to say that there been, but it's interesting that one of the most contaminated sites was one of the most aggressively used, and we have no reports of any health hazards.

MR. ANDERSON: Isn't the concern more of the stuff coming out of the bottom than whatever resides on the top?

MR. NELSON: Yes. The Army placed a soil cover and then a grass field over the landfill. So there probably was limited exposure to people to the actual fill materials. But, yes, unless there was landfill gas leaking out, that could cause a problem. But generally you don't find methane to be a toxic issue. It is more of a toxic displacement hazard.

MS. KING: One of the things is if you put a low permeability cover on it is to have water infiltrate through the fill material. When you do that sometimes the methane gas, if you do have any build-up, starts going out the sides. So, the houses are right next to it, and that's

why you have a methane gas collection. When the cover was put on by the Army -- when they closed the landfill, obviously you don't see waste material sticking out up there.

MR. KERN: We will take a ten-minute break and reconvene at 8:40 p.m.

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(Recess 8:30 p.m. to 8:53 p.m.)

MR. NELSON: I'm going to continue on with the discussion of the sites. I want to thank everybody for sticking around, and especially those people who are enjoying themselves, and find this to be a useful meeting. We're glad you are getting information out of this that is helpful. There are a few more planning areas to cover.

Crissy Field consists of three sites that are remaining in the FS, or that were discussed in the Alternate Remedy Document. The first one -- I'll move from north, to south, to west, I guess.

Building 611, which is here, is a former building that was torn down. When the Army did the restoration effort, or when the Park Service began their Crissy Field restoration effort, it was a transformer storage building.

Sewer Lift Station No. 1 is similar to Sewer Lift Station No. 2 to keep overflows of the sewer system from backing up and discharging sewage into the bay, and that's on the west end. So it's getting drained.

Building 63 is a firing range up against the hillside. It is pretty close to the 637 site, if people remember that area. Starting with 611, we actually had a

good chuckle when we started looking at this site. We realized there were very few maps that showed the existence of this building. It was a former transformer storage

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area, and it was excavated as part of the wetlands construction. There are no COCs in the soil based on the chemical screening and based on EKI's research.

In 1998, looking at the Army's Remedial Investigation Feasibility Study, they felt since the area had been excavated if it had been there. And so, there is no further action. And I think we came to an agreement on that one with the RAB. That was a no-discussion site.

Sewer Lift Station No. 1. The issues at this site are the soil and groundwater need to be sampled. They were sampled, and we found lead, nickel, and zinc as COCs in the soil. There is no groundwater data at this time. So the 1998, document suggested additional groundwater characterization, in this case, taken in the appropriate areas. And if we do find excavate impacted soil, we will look to see if there are any groundwater impacts.

MR. BERMAN: Is there any particular reason why the those metals were found in station one, but were not found in two?

MR. NELSON: I do not know. I can look into it for you.

MR. BERMAN: No, I'm just curious --

MS. KING: It could be a different drainage area.

MR. NELSON: It has different uses upstream.

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Building 633 is a firing range. Essentially what is there now is still some sand. That was what was shot into by the Army for the firing range. So the intention is to remove the sand that's impacted, and remove the concrete structure, and restore the area. Both of those recommendations that we plan on moving forward with are consistent with what was recommended in the Alternate Remedy Document in 1998. So, when we remove that sand we will get out any of the lead that was left behind from the lead bullets that were shot into the firing range.

Moving on up to Presidio Hill. There are a couple of sites on Presidio Hill, namely the Nike facility building, 1450, 1451, which is actually -- it was an ancillary building associated with the Nike facility. The Nike Swale, which, of course, is a marshy area down below the Nike facility that receives drainage upstream. If the Nike facility and also Building 302 over here on the east, which is close to Agaya Boulevard, which is part of the golf course.

The Nike facility, we have discovered from putting together the matrixes and comparing it with the RAB with a site is going to require some discussion and additional meetings. These were three missile magazines that contained Nike Ajax missiles and hydraulic lifts within the actual magazines that allowed the doors to open and the

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missiles to be raised up and down.

So there were some impacts from that operation.

Hydraulic oil tanks probably leaked, and there was standing water within the magazines. In 1992, the Army went in and did a removal of that, pumped out the water, and they basically pressure washed the inside of all the magazines, and dismantled a considerable amount of chemical materials within.

So what we suspect from this facility is that the run-off from the facility has drained PAHs, and metals, and hydrocarbons into the storm drains. There is a series of storm drains that have sediments contaminated with these in them, and possibly this has gone downstream to Nike Swale. This is consistent with what was recommended in 1998. We intend to do some additional soil characterization in the area of these drainage ditches.

We are excavating any impacted soil that may remain, and will also monitor the groundwater. There are monitoring wells now, and we will continue to take a look to see if removal of the soil has improved the groundwater quality in the area.

The Nike Swale. This is the Nike facility. It is currently an area owned jointly by the Presidio Trust and the Park Service as sort of a staging area, laydown yard for a lot of the forestry operations in the grounds, and

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roads, and trails. These are the magazines that are split up the middle where the two doors would open. These are the test pit areas. They will be fenced off here for safety reasons.

Sharon actually was present when they did the
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cleaning, and said it was pretty creepy to go down inside those things on the ladder.

MR. O'HARA: What is the status of the magazines now?

MR. NELSON: This is the status right now. One of the things we determined from talking to the RAB last week is there is a considerable amount of concern about the ultimate disposition of those magazines, and what's going to happen to them. I know there is some concern that groundwater may leak into or out of them. If there is any contamination remaining it could be a conduit, and that is one of the issues we will be talking about in future meetings. We will talk about future land uses, and ultimately what happens to the magazines.

The Nike Swale, which is one of the sites we looked at this summer, had no analytical data whatsoever collected in the past. It's an area that I know is near and dear to many people's hearts, including Julie and some other folks. It's quite a nice area of willows and whatnot below Landfill 8 surrounded by ice plant, which is a native

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plant. It receives drainage from the Nike facility. We pretty well confirmed that. With our samples that we took, we came up with some elevated levels of metals and PAHs in the sediments, and we did not find anything in the one surface water sample we collected, which is in a willow area.

Consistent with the 1998 recommendations of the Alternate Remedy Document we intend to -- we are excavating

those hot spots where the sample length was taken. And the other operation is if the Park Service chooses to essentially protect human health by leaving the contamination in place -- excuse me -- protect the ecological resources out there, and not impact on ruining the sediments.

We could opt to leave the impacted sediment, and perhaps by remediating the Nike facility upgradient of the drainage that comes down, it would no longer be contaminated. We are waiting on an answer from the Park Service whether they want to excavate the hot spots, or would like to leave them in place. There are some concerns about a lot of volunteers that go in and do plant work out there that might be exposed, and they might not want to take that risk.

MR. ULLENSVANG: I think right now we are interested in having more characterization of the site

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done. There are only a few samples, but there are portions of the site that are not of particular value, where some of these samples were taken, so they could easily be excavated.

MR. NELSON: Moving along, Building 1450, 1451 area was an operations control and maintenance building for the Nike facility. There were potential chemical releases from a seepage pit, some jet fuel, concrete vaults, a fuel pad, and fuel storage area. There are currently, however, no COCs in the soil. And so, with this site we found it was consistent to suggest no further remedial action, which was what was put forth in 1998.

Now, on this site I believe there was some interest in having some further discussion. What we determined from this was that -- when we were having some working group meetings earlier this year with the Lobos Creek watershed group, there was concern on the part of the members that there were some buildings sort of in an alignment with the 1451, 1450, but they were closer to Landfill 8 and Graded Area 9, down in this area.

And I guess, he had done research and they were used for disease research or clandestine activities. And he was concerned that those buildings, when they were taken by the Army, were possibly disposed of in Landfill 8 or Graded Area 9. So we sort of carried forth the possibility

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of doing additional discussion on these sites, not based actually on 1450 and 1451. But we feel when we have further discussions about Landfill 8 and Graded Area 9 we will be able to wrap those building discussions in with that.

MR. KERN: That's right. It was just like he said. It was a place to put it in discussion. It could be elements anywhere. That is just how it was solved.

MR. NELSON: The last facility in the Presidio Hill is Building 302, former golf course maintenance building used for herbicide, fungicide, pesticide, and fertilizer storage. No COCs were found based on removal of soil for the new golf course clubhouse. It is consistent with the 1998 Alternate Remedy Document recommendations. There is not going to be any further

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remedial action at that site. And based on the matrix, if everyone agrees, there will be no more discussion on this site.

Presidio Forest. There are four sites within the Presidio Forest: the transfer station area, Landfill 4, and Landfill 2. Sorry, there are three. And then Landfill 2, there was a question earlier about why we didn't talk about it when we discussed east housing. That is the boarder of the east housing area. So it's sort of to the left there.

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Landfill 2 sits in sort of a drainage area. We looked at -- a few weeks back, I think it was last month's RAB meeting, when we used it as a case study. There was an area used for disposal of the municipal waste and debris. There is potentially some medical waste. It's approximately 43,000 cubic yards of fill. And some of the chemicals of concern in the soil are metals, particularly lead has a fairly high concentration in the one sample. And there is also DDT.

There is also groundwater monitoring wells and a seep downgradient that have been monitored. And they show that metals and petroleum hydrocarbons are the COCs. Looking at the site through the Feasibility Study, we are proposing to excavate the site much like we did a couple of years ago. And we also intend to monitor the ground. I believe that site is a no discussion site, although it may come up in the future.

MS. SHLEZ: These are pictures of Landfill 2.

MR. NELSON: This is the actual area here where you can walk up into the bushes and see the actual fill and the debris that was disposed. Above that area is a bramble of berries. So you can walk down the trail to the right, and see where the landfill ends. Landfill 4 is an area that's near the central magazine that was used for

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disposal of debris and municipal waste. And potentially they suspect some chemical waste was disposed of there.

This was one of the sites we looked at this summer. In trenching we took soil samples and we installed a couple of monitoring wells. There's 4,200 cubic yards of waste fill. And additionally, looking at test logs, and previous soil sampling, and some borings for soil sampling, and observation it appears that the eastern extent of the landfill, almost from the center to the east, is primarily sand.

We dug in those test pits. We found a little bit of turp at the surface. It was road-base material probably. So almost 3,000 cubic yards of what was formally suspect is likely just soil and may be able to stay in place when the excavation takes place. There are some metals and pesticides as COCs in the soil. And believe it or not, it is one of the few sites at the Presidio where trichloroethylene, TCE, has been detected a couple times in the monitoring well.

That is another area of the Presidio where groundwater is kind of curious because the Army put in several borings to complete monitoring wells. And they

were only able to find a shallow, thin layer, which when we drilled wells, they were both dry. However, when we went back later, the one well that was existing had some water

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in it. However, it was not enough to collect a sample.

The plan at this time is to excavate the landfill, or clean closure, as we call it, and then monitor groundwater. And that's consistent with what was put forth in the Alternate Remedy Document. And, I believe, this is a no discussion site. However, there are a lot of sites that we have data for that was collected this summer. And we will be talking about that as soon as we have a report.

MR. KERN: Do you have any recollection about what the grayish, green goo you were going to sample was?

MR. NELSON: It did not come up as being anything remarkable in metal content, or any sort of organic contaminants. It did have an odd smell. It didn't register any ratings on any of the monitors. And we did take a sample, mix it with water, and took a PA sample. It was neutral. So it looked a lot worse than it was is the answer.

MR. BERMAN: What's your feeling about the way these landfills' stuff was trucked from the more attractive areas in the Presidio? Were they brought up there and dumped because these are sort of uphill -- especially Landfill 2, is way uphill, almost at the southern edge of the Presidio. So was the stuff put in trucks and hauled up there and dumped?

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MR. NELSON: I don't know what the actual methodology in using those particular areas was. If you look at landfill locations at the Presidio, they were formerly hill sides or the like. If you look at the coastal bluffs site, the Army pushed things over the edge. Fill Site 1 was a canyon-type, as was Landfill 2. I imagine that there was possibly use of these landfills. There was probably some overlap of some of these landfills. Many were operating at the same time of the Presidio.

So it was probably a local issue, but it was also an issue of some of the landfills not being used during certain weather conditions. Landfill 4 didn't have an all-weather road. So when it was raining or bad weather, they would use Fill Site 5 across the way. It would be interesting to find that out.

MR. ULLENSVANG: I've always imagined it was that way. I don't think we know. I'm not sure.

MR. NELSON: It's hard to tell what was happening with a lot of the trash-like materials at the Presidio. We certainly didn't see evidence of a lot of putrescible waste and household trash at the sites we trenched this summer. Certainly there may have been quite a bit at Landfill E where they burned it. Certainly, what I observed was not your typical, household, garbage-type waste. It was more construction debris.

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MR. BERMAN: You point out there was medical

waste in Landfill 2. Where did that come from?

MR. NELSON: Probably Letterman.

MR. BERMAN: But there were dump sites around Letterman. Why would they truck it all the way up to Landfill 2?

MR. NELSON: If you recall, Fill Site 6 is primarily building debris where they mowed buildings over and filled it. There isn't any suspicion on the garbage in Fill Site 6, and certainly the soil and groundwater sample that we have collected doesn't support there was a lot of municipal waste there. I'm constantly scratching my head as to how the Army did things, and not a lot makes sense. This is what we've adopted.

Moving on to the Transfer Station Area. Let's go back one second. These trees are the center of the Landfill. These are eucalyptus trees, and they are dead, as you can see.

I sort of got a kick out of the story that Brian told me as to why the trees died. That story is, they were nicked with excavating equipment that was used to dig test pits or dump materials, according to the Army filling operation. So, I know as a professional land owner that has several eucalyptus trees, I could nick those trees with my car at 40 miles an hour and not kill it. So, I doubt

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that the source of the death in these trees is from our digging. We didn't find anything. Obviously, it is showing chemical waste there. I guess, we'll find out when we're digging, what the causes are.

MR. BERMAN: Aren't there a lot of dead
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eucalyptus around the Nike area?

MR. ULLENSVANG: I think the interesting thing is they are clustered here. And if you look around the adjacent forests, there aren't any other dead trees. Trees do die, and so that alone does not cause concern, but they are uniquely clustered.

MR. NELSON: There are a few stragglers off to the east as well. There is a major ring of trees, and then off to the east it is possible that the Army just used a lot of pesticides on these trees, and maybe killed them to make room for more filling. I don't know.

The Transfer Station Area, also in the Presidio Forest, is tucked away in the hills near the golf course and sort of uphill from Park Boulevard, which goes down from Washington down to Lincoln. It was a municipal waste collection and transfer station for off-site disposal. So this site was operating -- I guess the Army finally decided to take stuff away, rather than just dumping it in the existing landfills. The metal here is chlordane and there were PAHs in the soil.

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And there was also -- I guess, after the transfer station was closed, maybe the gate wasn't locked all the time. There were people using it, and possibly even to this day there is some additional rubbish that has been dumped down the adjacent hillside that is part of the area of concern there.

We feel this site was poorly characterized. So in the Alternate Remedy Document it was suggested we do

additional soil characterization to determine how much soil could be removed to excavate that impacted soil, and to remove that hillside rubbish and debris. So what we're putting forth in our proposal in the Feasibility Study is consistent with that. So that shows up as an area where the Trust and RAB agree. And that shows up as a no discussion site on the matrixes.

The 1750 building, which is my home five days a week, is in the Lobos Creek Valley. And that's the one area within that valley that falls within the Main Installation. It was a maintenance facility and there were some underground tanks. I know that there were some suspicions of inorganic chemicals, possibly from a waste oil tank there. The soil data is fairly limited. I guess there was some data from one of the firing ranges there, and I believe there was a gas that indicated COCs. So we suspect that there is petroleum remaining at this site

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because it was poorly characterized.

MS. KING: They didn't sample in the areas of concern where there were waste oil tanks. They did surveys where there could have been releases.

MR. NELSON: So my office is not near this. We of no underground tanks unless they were put there before I got there. Consistent with the Alternate Remedy Document in 1998, we plan to do additional characterization soil sampling in the right places, near the former tanks, and will excavate any soil that's impacted. And that site shows up as a no further discussion site on the matrixes.

Coastal bluffs. This area along Lincoln Boulevard

on the northwest side of the Presidio consists of six sites. Starting on the east, Fill Site 5, which is just due east of Baker Beach, Disturbed Area 3, is actually above Lincoln Boulevard. It stretches down the hillside towards Lincoln, down the road to the west of Landfill 4, Baker Beach Disturbed Area 1, which is up near the coastal trail right in the middle of the coastal trail. Baker Beach, Disturbed Areas 1, 2, 3, 4, all stretch down Lincoln Boulevard as it winds down through the western portion of the Presidio.

Fill site 5 was a landscape debris and municipal waste disposal facility. Like I said, the Army had used that site reportedly in wet weather because it was more

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accessible. It is a poorly characterized site and contains up to 55,000 cubic yards of waste fill. There are -- from the samples, metals and chlorodane are identified as COCs in the soil. And currently, based on this summer's efforts where we put in two monitoring wells downgradient of the site, there are no COCs in the groundwater.

One of the wells put in by the Army to investigate Building 1349, which was a large fuel storage tank above Fill Site 5 is actually completed pretty much in the fill, and did not show any impacts from the site. And the Army when they did their investigation in the 90's, drilled wells and didn't find any water. So they didn't complete any monitoring wells.

According to the Alternate Remedial Action Document and consistent with the Feasibility Study, our proposal is

to excavate the landfill and monitor the groundwater to see if we can find the impacts. And that shows up as a some discussion site on our matrixes. And that's probably based on the data that came out that the RAB has not had a chance to look at.

Baker Beach, Disturbed Area 1A is essentially a disk about the width of these two or three tables, maybe bigger, and lies in the middle of the coastal trail. If you're walking along, you are getting to one of those northern most batteries. You can see the Golden Gate

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District's yard. If you get a darkening of the soil and some roofing material in the soil, you are on top of the site. And I think what's largely believed to have happened out there is there was roofing material placed over some of these batteries, and perhaps periodically the Army scraped all the material off the roof of the battery and dumped it off the edge there.

It is poorly characterized. From the roofing materials there are PAHs in the soil, and possibly some asbestos that might have come off with the roofing material as well. So, we're going to do some additional soil characterization and excavate the impact material. Any soil that may have been contaminated by the materials will be hauled away up to the appropriate cleanup level. That is consistent with the Alternate Remedy Document, and that site shows up as a no discussion site on our matrixes.

Baker Beach, Disturbed Area 1 is further south along the coastal bluffs. This is a site where a former series of buildings was placed and possibly an incinerator

building, that appears to have been knocked over the edge, or possibly bulldozed. There is 24,000 cubic yards of waste fill materials. Metals and PCBs are COCs in the soil and sediment in that area. There is a seep that emanates from the bottom of the fill area. However, no COCs have shown up based on the screening done through the

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Feasibility Study process.

The plan with this site is to excavate the material. And we've been tossing around how that is going to be done. That is going to be quite a sight to observe being cleaned up. We will monitor the seep to make sure any impacts are not occurring after the material has been taken away. That is consistent with what was called for in the Alternate Remedy Document.

And that site is listed as a no discussion site. However, based on some comments that some of the community RAB members made last time, we may break into spontaneous discussion of this site to say -- I mean, people know how long it has been there. And it is a health hazard and people could possibly trip on materials. And it will be great to get it out of there. The Park Service plans to restore the Serpentine hillside plant community.

MS. SHLEZ: Here are more pictures of that where you can see the debris.

MR. NELSON: This area here is, I believe, Cape Ivy, which is consistent with the landfills in Presidio. It is highly evasive. So, in a lot of the areas of the site where you see non-native species, that is where

you have fill material and a disturbed area. And here you can actually see pieces of concrete and wood and other materials that were pushed over the edge. And there's a

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trail, a casual trail that is basically -- you can navigate your way right down to the fill on that trail and cross over the bottom of it.

MR. BERMAN: Is the removal possible by barge from the bay?

MR. NELSON: Actually that's the other side over there. Because it's on the western side of the Presidio, it is an embankment point by Benita and Land's end there, but it's a pretty rocky area along the beach. And out in the water there are moderately small rocks and large rocks that could make that difficult. There's been some talk about using some track vehicles, or like big balloon-tire vehicle that can come from the forepoint, back up, and push the materials down the hillside, and then haul them away. But it's going to be an interesting project to get that out of there.

MR. BERMAN: You can get cranes and go 300 feet from a barge. That might be able to scrape it off and barge it.

MR. NELSON: That's true, or possibly chunks big enough from the top and come down. This might be a way of --

MS. KING: We're looking at all the options.

MR. NELSON: There's a big piece of metal in the ground, concrete to make it stable, and basically will

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be pushing it down the hill, and hauling it out that way. The other operation is to build some sort of structure to move it up the hill, and take it away. That way it will certainly be a challenge to get that remedied.

Baker Beach, Disturbed Area 2 is similar in size to Baker Beach Disturbed Area 1. More of this soil is imported, concrete, and additional debris. There is a little area to the north that we see some other debris. So there's approximately 4,000 cubic yards of waste. Plus this area to the north which is an unknown amount has not been characterized.

COCs are metals and PAHs. And the plan with this site is to excavate it and restore the Serpentine hillside for the plant restoration project. So that's consistent with what was suggested in the Alternate Remedy Document in 1998.

MR. KERN: The unknown amount, is that a recent thing?

MR. NELSON: There is an area -- you can't see it on this map -- the area of fill on Baker Beach, Disturbed Area 2 is hard to put your finger on. There is a little, sort of mound of hillside that sticks out next to the fill. And then there's a ravine next to it where, I believe, some natural resources staff from the Park Service have observed debris materials and possibly some trash.

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MR. ULLENSVANG: From the north side of the

parking lot there is debris that goes down to the beach in that area which the resources folks made me aware of. And I passed it on to the Trust.

MR. NELSON: It's not clear whether this material has any contamination associated with it. It's not clear how much of it there is. It could be an extension of two because if they were using the parking lot area to push material over the side, it could be consistent with the filling episode of the Baker Beach, Disturbed Area. But when we go out and excavate the main portion, we'll be able to get at that part as well.

MR. KERN: So you're going to treat it like an extension of two?

MR. NELSON: Yes. Baker Beach, Disturbed Area 3 is further down the road. As it snakes down Lincoln there's a big S-turn, and it's off to the west there. This was a site that has two separate parts. There appears to have been an upper part that was soil, that was probably placed for stabilization of Lincoln Boulevard.

And in the lower part we found much more debris, and there are much higher levels of contamination in that area. So there's approximately 33,000 cubic yards of waste fill stretching from essentially below the trail, I believe, by the Battery on Crosby. The trail that comes

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off of Lincoln Boulevard goes down the battery. To the west of that is the major portion of the fill that includes the debris.

And upper park is more benign material. We sampled this summer and found very limited pesticides and metals.

We did take a sample from the seep that emanates from the bottom of the fill and goes down the hill, probably both above and below ground at times down to the beach. And we didn't find any COCs in that seep. That's essential downgradient of the filled area.

So we find that to be good news. So consistent with what we said in 1998, we are suspecting that the upper portion of the fill was just imported soil, not a lot of debris. We didn't find debris in the borings we did. And the chemicals that are there are not of concern. So we would leave that area in place with no further action for the upper portion. And then also consistent with what we had said in the Alternate Remedy Document in '98, we recommend putting a low permeability cover over the lower area and continue to monitor that groundwater seep at the toe of the site.

Baker Beach, Disturbed Area 3 comes up on our matrixes as a much discussion site. So we will be talking about this site and others that require much discussion in the future meetings.

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MS. SHLEZ: Here are some photos of that area.

MR. NELSON: Here is the trail I was telling you about to Battery Crosby. So the upper portion basically goes in this direction, up the hill. And the lower portion is from this enclosed fence, and possibly underneath this trail. To the west these trees are in a ravine that is filled in. And, I guess, this is the upper

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portion. This would be Washington up here.

MS. KING: Actually those trees are -- this is the steep face.

MR. NELSON: This is the hillside down from Washington. There is a light stand there, so from Lincoln Boulevard you can't see --

MS. KING: This is as you're walking down the center of the fill site. It's the face, the steep face.

MR. NELSON: So these trees are in the ravine?

MS. KING: So the trees in the picture are the same as the first photo.

MR. KERN: Getting closer to the poison oak.

MR. NELSON: I got poison oak through my clothing and coveralls in May when we went down and sampled. The last site in the coastal bluffs is Disturbed

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Area 4, which was another one of these sites that was used. Deported soil and debris was brought in to stabilize Lincoln Boulevard adjacent to Disturbed Area 3. What we did this summer is we went back and took samples that were sort of in between a hot spot that the Army identified and we confirmed there was some contamination there of concern, lead primarily. And then the upper portion that had not been characterized, we took some additional samples.

And consistent with those results that we found, this happens to be an area that the Park Service put a considerable amount of time into regenerating native plant habitat. It's a real nice area. To remove the soil, which

is not necessary, would be quite a damaging thing. So we are leaving that in place, which was consistent with what we said in 1998. And then we will excavate the continuing hot spot.

So, in the lower area with the elevated lead, that is alongside another road, sort of an unpaved trail-type road that goes down towards the beach there. So that concludes the main installation sites. And with Baker Beach, Disturbed Area 4, we had it listed on our matrix as a some discussion site. That's most likely based on the data from this summer.

We're going to continue on and finish up with the Public Health Hospital sites, and Jennifer Coats, who is

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product manager of the Presidio Trust, will fill you in on those projects. She is the project manager for the ROD Amendment and will tell you about those.

MS. COATS: Good evening. I am with the Trust, and it's my pleasure to bring you into the homestretch of tonight's presentation. A brief history of me is I'm a geologist, and I have worked with the Presidio since February of '92, with Montgomery and Watson. And I've been with the Trust since December of last year.

These are the sites included in the Public Health Hospital ROD Amendment. This evening we'll go through Landfill 8 and 10, former Building 1827, Graded Area 9, Lobos Creek, and Mountain Lake.

The Landfill 8 area was used for disposal of vegetative debris, waste debris, and possible hospital

waste. This area is over a cemetery. And the total fill on there is approximately -- we've estimated 52,000 cubic yards. Metals are the COCs in groundwater at this site. And during our Tuesday meetings of last week, we identified the Landfill 8 area as a site that needed much more discussion.

Our original proposal in 1998, was recommended excavation. However, at this time I think we're looking at soil cover. And I've invited the Trust archaeologists to meet with us on October 24 to discuss some of the issues

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involved with the cemetery at this site to answer any questions that may come up. We propose to monitor groundwater. That is the same as 1998.

Landfill 10 contains building debris and soil. There is a very, very steep slope. This is above the Lobos Creek area. The current estimate is approximately 240,000 cubic yards of fill at this site. And there is currently no COCs found in groundwater. Our proposal at this time is to stabilize the slope and cover the hillside, which is the same as proposed in 1998, and to repave the parking lot on top. If you go out to the site today, you will see where the parking lot is failing, and there is no action for groundwater.

And as with the Landfill 8 site, we felt it needed a lot more discussion. And that will also be included on the October 24th meeting.

MR. BERMAN: That's a huge landfill. You would think it would be good to do a lot of data sampling in order to know what it is, but apparently you're

satisfied that it's just building debris. The whole thing -- it's a huge site to be just building debris. And you've done enough sampling to know there are not corners where there is a factory of worms.

MS. COATS: We will be doing one more sampling. Chris is working with one of the contractors for

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the design, and they will be collecting additional samples.

MR. NELSON: There was a soil contamination report that was done by the Army that looked at additional borings and additional wells. That was done in '96, or '97, and I believe the State gave their concurrence with that, that the landfill was indeed a non-impacting site. And so what we intend to do is primarily look at where the edge of the fill is, is there any debris, is there considerable debris, or is there soil on the edges, and take samples for geotechnical purposes to determine engineering properties in the soil to see what's the best solution for stabilizing the site.

At 240,000 estimated cubic yards, it comes in as the champion of the landfills at the Presidio. It is the largest. However, we feel that based on the soil and groundwater data that's there, it's not impacting groundwater, and it's not a problem to leave it in place as long as we can cover it and keep it from running off to Lobos Creek.

MR. BERMAN: The thing that is so amazing about it is in the passing review is that the Army seemed to be indiscriminate of what they put in most of their

landfills. And here you have the largest landfill that is three times bigger than anything else in the whole Presidio, and yet it looks like great care was taken to

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only put in building material.

MR. NELSON: Yes.

MR. BERMAN: It could be true, but it's inconsistent with the way the Army did it.

MR. NELSON: I think you have some sites that are clearly nastier than others. I think Landfill 8 has probably more materials of concern. Landfill 10, I believe, was filled in to build up the complex. A lot of buildings had been in that area, and torn down, and basically left in place. And so that parking lot was over former building debris. And if you were to compare Landfill 2 with Fill Site 1, you would see some areas of Fill Site 1 are quite bad, and some areas that appear to be fill are just sand and soil.

So there's no rhyme or reason for how it worked out, but I think the data for this site speaks pretty clearly to Fill Site 6.

MS. KING: I think that is our understanding of what was done out there. It was sort of a series of filling of vents, rather than an open landfill. And it was filling to extend the flat surface.

MR. BERMAN: So most of the debris was actually buildings that were there?

MS. KING: The old Merchant Marine Hospital.

MR. NELSON: There was a report actually

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done on the cemetery an archeological study. There are a number of records, national archives, and other places were searched to deem what could best be done about the cemetery under Landfill 8. What you will see in that report is I have made a number of copies to be available to whoever wants one. This shows pictures of the historic layout of the site, which includes the filling of Landfill 8 and Landfill 10. It was up on configurations starting way back in mid to early 1800's. So it's quite a historic site.

MR. BERMAN: It is still surprising that whatever went on in those buildings, that there's nothing left there, no COCs, just debris.

MS. COATS: Former Building 1827. This is a former pesticide, herbicide, fertilizer storage excavation place for lead and pesticides. And currently soil was not impacted, and it requires no further remedial action due to the residential lead cleanup level of 400 milligrams per kilogram. We want to present clarification on this site for data, and that would be included in the clarifications.

Graded Area 9 is a fill area containing soil and, approximately, less than 2 percent debris. We did a trenching and sampling program this summer, and basically we found a lot of filled soil, nothing too exciting to report. There was slightly elevated metal contamination, which we feel are naturally occurring in the soil that was

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used to grade the area.

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And we installed four monitoring wells. I put four monitoring wells in, and I did not find water at all. So hopefully there will be some in the rainy season, but there has been no groundwater to date at this site. In 1998, the recommended remedy was soil cover and groundwater monitoring. And at this time with new information, we're thinking about no further remedial action. And during Tuesday's discussions, we listed this as a data review, present data to the RAB to review for further discussion.

Lobos Creek. Here are lovely photos of oaks that run along the creek. We don't believe there are any sources of contamination in the creek. There are low arsenic and lead detections. Current arsenic levels in the sediment are below cleanup levels. We sampled this summer, and we did find intermittent low levels of lead in surface water. We have to present the data on this site, and that will be a data presentation site. And if anybody is interested in a walk or a tour of Lobos Creek prior to our discussion, let me know. I can lead a little field trip, or show everybody the site. It's a very beautiful site to visit if you haven't seen it.

Mountain Lake. This is our last one. And we did additional sampling this summer of Mountain Lake surface water. We found no COCs in our sampling this summer in

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surface water. There is one lead sample that exceeded the cleanup number slightly, and there are no sources of contamination in the lake that we're aware of. So this is a no further remedial action site. This is what we're proposing. However, we still have to present our data on

this site. And we listed that as a data presentation, data review site for our discussions. And those are the sites.

MS. CHEEVER: It would also be helpful when we will discuss these if you could talk a little bit about how the proposed restoration of Mountain Lake may take care of these problems. I mean, I'm not exactly sure of what all the restoration is going to do. I know those of us who have lived in that area -- it would be nice if we could report back to people, if I could explain how the two things interact.

MS. COATS: We can present the plan on Mountain Lake.

MS. CHEEVER: The detailed plan is soon to come out, right? But I don't need the whole plan. I just need to be able to explain it to people.

MS. WRIGHT: I had a question on Lobos Creek. I know that it sounds like cleanup levels were not exceeded, but I was also wondering, since that is a source of drinking water if it had been tested at the tap. I am not sure if you have gone that far. I would be curious to

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know how much of what is left is actually taken out of the drinking water once it gets to our faucets.

MS. COATS: I know there is testing.

MS. KING: It is tested at the treatment plant.

MS. WRIGHT: Do they know that you guys have found these particular ones?

MS. KING: They are below drinking water

standards.

MS. WRIGHT: That's good.

MS. KING: What we found is lead. Lead is an action level of 15, and I think the highest hit is like a 9 here.

MS. WRIGHT: No offense to the standards, but I know with wildlife standards, that is not human standards. And after a long-term exposure --

MR. ULLENSVANG: The 15 is a human health number. That is what the drinking water level is. The treatment plant does do regular testing. And Tom, correct me if I'm wrong, but there is a report that outlines what the testing is. And that would be available to anyone.

TOM: I think Sharron just asked for something to be written in layman's terms to understand drinking water quality. She can do that next week.

MS. WRIGHT: I am trying to represent other

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people who have been drinking the water from the creek.

MR. NELSON: He could show you the sampling points at the plant.

MS. WRIGHT: Ever since we saw the pictures of the orange water, I am nervous.

MR. NELSON: We can talk about that more in discussion at the meetings. I think it would be interesting to hear what the source of that is.

MS. REACKHOF: There will be something coming out for residents from the utilities department in the next few weeks. And this will be a little more down to earth kind of a discussion.

MS. KING: At Landfill 10, there is hexavalent chromium in groundwater, but we've also sampled in Lobos Creek although it is not occurring. We didn't detect any in the drinking water.

MR. BERMAN: Is the creek fed by an underground spring?

MS. KING: Groundwater.

MR. BERMAN: So there's no spring feeding into it at all?

MR. ULLENSVANG: The groundwater emanates into the creek by a spring. It's a variety of places.

MR. KERN: As Brian said, there are a variety of places where water comes in from banks, through

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the surface, through the bed surface, and then there is considerable mapping of where the primary water input comes from in the creek.

MR. BERMAN: So, geologically is there any Serpentine around there?

MS. KING: Bedrock, yes.

MR. BERMAN: So, no Chrome 6 in the water?

MR. NELSON: There is at Landfill 10.

MS. KING: You have Chrome 6, but in the actual creek it's -- you don't see it. It could be you have sediments. It could get reduced.

MR. KERN: I need to jump in because we have a 10:00 o'clock adjournment time, and we have something we need to try to get out in front of people, the meeting schedule. And there are a few other comments we need to

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get in all in about eight or nine minutes.

MS. SHLEZ: First, Doug, I'd like to thank you very much. You have helped us greatly in providing us the presentation materials for tonight. And I also want to thank the RAB because a lot of materials have been used tonight were used quite a few months ago when the working groups did their presentations. So I want to thank you all for that in making our jobs easier.

If I could direct your attention to this handout, which is the one we emailed and sent out last week. It is

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titled, "Proposed Approach for Discussing Remedial Actions." And as you can see we sort of divided out the sites as they are in the matrix as sites that needed much discussion, sites that need some discussion, and basically sites that didn't need any discussion.

As we had identified, any further discussion are not listed on here. So on the other side of the sheet what we tried to do is try to come up with a reasonable approach to how to discuss all these sites that need some and much discussion. So based on the conversations that we had last Tuesday evening, what we tried to do was come up with a series of evening meetings, as well as some possible daytime meetings.

We realize that there are a lot of folks who are really interested in discussing some of these sites in depth, and we want to make sure that as many people as possible have the opportunity to do that, which means having quite a few evening meetings. It seems that from previous discussions with folks it seemed like Tuesday

nights were good because we already have two regularly scheduled RAB meetings a month on Tuesday nights. It seems like it would be the appropriate night to have these discussions.

We also realized that there are conflicts in terms of the timing on those. So we wanted to talk to you more

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about how we could reschedule, and what people's availabilities are. What we thought we would do is use the regular committee meetings to talk about specific sites, as well as RAB meetings, as well as to schedule meetings that would fall on dates in between.

So based on a lot of discussion last week, this is the schedule that we came up with. It would start next Tuesday evening with a discussion of some of the sites that need some discussion. We kind of go around in circles on that. It is kind of funny. We thought as much as possible in terms of how we would approach these discussions. We would send out data, or other information to folks ahead of the meetings that are scheduled here, so that people can have time to review that information, and come up with some possible questions or concerns that can be discussed at the meeting times.

What we also thought would be appropriate was some of these much discussion sites would probably need at least two meetings to get through the major issues. So what we thought we could do is the first meeting that we would have on these much discussion sites, we would present some of the data, and will discuss some of the issues or questions

that folks have, and really kind of do more background stuff.

And at the second meeting follow up, and roll up

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our sleeves, and talk about why one remedy might be better than another, or what are some of the main concerns about a specific remedy the Trust might be promoting. And then if there are any further questions you would schedule additional conversations as needed per site. We hope that folks are okay with that kind of approach. We hope that that would be kind of a worthwhile way to do it. That way you have a chance to get a little more background, as well as a chance to discuss some of the main issues.

So this is a schedule as we sort of try to divide the sites up. What we thought is it would be good to look at two sites per meetings for some of these much discussion sites. And we thought we would break them out in ways that seemed most appropriate, meaning based on specific kinds of issues with those sites, or maybe by proximity in geography. So next week, we will be talking about some, some discussion sites, followed by the next week with discussions about Landfills 8 and 10.

Then we would talk -- on the following week we have a possible conflict. We have Halloween on October 31, which would be next Tuesday. So we thought we would open it open up and see what folks' availability is on the Wednesday or Thursday after Halloween. This same thing goes for the following week. The following Tuesday is election night, the 7th. And so we want to make sure that

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folks get a chance to go to the polls, and watch the returns. So we thought we would schedule the meeting the Wednesday or Thursday of that week, depending on people's availability as well.

And as you can see, the meetings sort of fall out after that. Also on the week of the 21st is the week of Thanksgiving. We realize people might have family in town, and would not be able to devote time for a meeting that week. But we also have a regularly scheduled bi monthly status meeting that week. We can maybe discuss some sort of broader issues at that time. We also realize that there might be some meetings based on the availability of our regulators for our evening meetings, and we need to be considerate towards their time and availability.

There might be some meetings during the daytime. There are some RAB community members who are available for those meetings. I want to make clear those would be more the follow-up type meetings. So at least each one of the much discussion sites would have at least one evening meeting devoted to it in which the majority of the RAB members would be able to attend.

So I wanted to find out what people's reactions are to this proposed schedule, and also to see by show of hands which of those Wednesday or Thursday evenings would be more conducive to folks. Just in general, does this schedule

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seem like it's appropriate? I see a lot of nodding yes.

MR. BERMAN: There's quite a few RAB members that are not here tonight, and I think that whatever is concluded here that some effort be made to get them into this as much as possible.

MS. SHLEZ: Absolutely. Then again, we also have to work with what we've got tonight in terms of setting out additional meeting times.

Let me start with the week for the meeting of the November 1st or 2nd. The first is a Wednesday night. The second is a Thursday night. Can we do a show of hands as to how many people would prefer Wednesday night, the 1st? How many people would prefer a Thursday night meeting? Looks like Wednesday night for that week might work better. So that would be Wednesday, November 1st.

Then, how about the following week? That would be election week. Can we get a show of hands for Wednesday the for Wednesday the 8th or Thursday the 9th? Okay, only one cannot come on Wednesday the 8th. Hopefully the other community members will be able to fill you in on what you missed.

Looks like we have two Wednesday night meetings in a row for November 1st and 8th. And what we thought we could do for the daytime meetings is schedule those as we move ahead with the other meetings to basically see how

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we're doing, and see what people's availabilities are as we go through. And also some folks might be interested in one site and really want to attend all the meetings for that one site. So we want to make sure that everyone who can be is accommodated as much as possible.

MR. NELSON: You want to mention the locale?

MS. SHLEZ: Building 1750, in the second floor conference room, regular committee meeting location. As far as scheduling, it would be for 7:00 o'clock. And we hope that those meetings will be discussion-type meetings where people can sit around a table, go through the maps, look at the data, and roll up our sleeves, and look at things kind of how we did at the Building 637 process. This way we can really immerse ourselves in the sites that need to be addressed.

MR. BERMAN: What is the time of the bi monthly status meeting?

MS. SHLEZ: I think it's 10:00 a.m. on the 21st. We're going to send out an announcement prior to that meeting for everyone to see that date and time.

MR. NELSON: What we're going to do is when we start talking about some of these sites is getting as much of the data out to you as we can, so you can review it ahead of time. That is something that was expressed last week. This is the meeting we are working on getting that

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together for you.

MR. KERN: I would like to very much thank the Trust staff for putting this long, detailed presentation together. I think they really responded to a couple of the meetings we had, and they walked through all the sites. I appreciate Michelle coming as well as the staff to present this information. I think it is a great start to get into some of these further discussion sites.

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We have a meeting a week from tonight. I need the data, like tomorrow in order to be able to talk at that meeting. So it's not going to be a discussion meeting unless we have the data. So probably one thing that we need to consider is if you guys are busy, and you know there's internal workings, and you can't get the data, we need to have some release valve so that we don't have everybody come to the meeting and you just present the data at that meeting. That's not really what we want to do.

I mean, I want several of us to come to the meeting having discussed the data, and then we can talk about the data, and see what it means. We need to be prepared. We need a little time, and a week is -- even if we have the data, tomorrow would be stretching it. So that's something we need to work on. And with the data should include cost figures. That will be important for many of these sites. So I hope we can get some access to that as well.

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MR. NELSON: I think that we had discussed last week in the meeting there were some sites that were clarification only that didn't necessarily require an in depth discussion of data. So if our plan was to talk about sites that didn't need in depth discussion -- if we didn't get the data to you, our plan would be to discuss clarification issues, and if we have to follow-up on those. And you want to ask more questions, so be it. But I think we did identify some sites where there were primarily clarification issues that may not have been necessarily related to data.

MR. KERN: That is definitely true. We have

three sites down here that were in that category.

MR. NELSON: Our intention was to focus on those first, so you would have more time to study the data.

MS. KING: I think for this coming week, the Trust and Park Service do need to review the tables and figures, but I think it would be a crime if we get data and don't present it. At least it would be an opportunity to present the data, and then in the follow-up meeting get feedback, and give you guys time to look at it.

MR. KERN: It's not really what we talked about.

MS. KING: It's not ideal, but we're trying to do the best we can.

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MR. BERMAN: Is it necessary to have this tight a schedule? Maybe we can abandon the meeting next week, and you have got some possible daytime meetings, and other meetings related to more discussion, some discussion material, so --

MR. KERN: I would concur with Chris if some of these clarification things could be done at a meeting that would not require a lot of advanced data preparation, but where there is data -- in tonight's presentation we saw a lot of data woven into some of the discussion. And I don't want to put you in the position of damned if you do, damned if you don't because you talked about the data. We haven't been able to see it. There's an anxiety, or a desire to review that with you. So we want that chance to talk about it and to examine it. When that can happen, it

would be welcome.

MR. NELSON: I should be getting comments back from Brian on the sampling plan this week. So if we can sit down and talk about that, and get the comments out, I think we can get out the data for any of the sites where data is an issue. For the next couple of upcoming meetings I think we will be able to have this report out. And then we can pow-wow internally and decide on which sides where there's data we need to get to you. We can make the decision to do it. We are sensitive to your concerns that

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you want to have the data, and we hear you. And we will do the best we can to get it to you as soon as possible.

MS. CHEEVER: Well supporting what Doug has said, I also support moving ahead. One reason is the holidays coming up in November and December. So we need to take the time while we have it. And currently the Trust is going to provide the Feasibility Study. I think we would prefer to discuss it before they produce the Feasibility Study on December 15.

MR. NELSON: There will be 60 days to review the documents instead of the typical 30. So there would be more time to look back at your notes. We realize putting it on December 15th, is not the most opportune time. But in the interest of incorporating this process of meetings and discussions, we wanted to get that document out this year, and leave you extra time to review it.

MR. BERMAN: I'm not opposed to the schedule. It's just that if we notice we really get into something in depth and in value, and we need the data -- if

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we can accomplish it, that's fine, but if you need the data, then it doesn't make sense to have a meeting unless you have the data.

MR. KERN: I think you've given a great response. I mean, we're going to try to work towards getting whatever we can arranged for the meetings to

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accommodate that. I appreciate that. Let me try to wrap up the meeting then if that would be appropriate.

Is there any new business? Thank you. No new business? Is there any review of action items? I think we have a lot of action items on our plate. We are pretty aware of what those are. Agenda items? We have many agendas coming up, and we are going to be revising those and getting the information out to everyone, as Sam mentioned, to the people who weren't here tonight. And committee items, give them to Mark as always.

Any other announcements this evening? Thanks everyone for staying and for participating.

(Meeting adjourned at 10:11 p.m.)

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ATTENDANCE

RAB MEMBERS

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PRESIDIO RESTORATION ADVISORY BOARD MEETING

November 14, 2000

GOLDEN GATE CLUB

7:14 p.m.

MR. KERN: Good evening everyone. This is the regularly scheduled meeting of the Presidio Restoration Advisory Board. I would like to welcome everyone here tonight, particularly the community members, the regulatory staff that's here with us, National Park Service representatives, Presidio Trust, their contractors, and of course, any members of the public that are joining us tonight.

Particularly I want to thank you for coming out tonight to hear this discussion about the clean up plans at the Presidio. Does everyone have an agenda tonight? Are there any changes, additions or modifications anybody would like to make? I am seeing none.

Announcements, I think Sharron might have an announcement.

MS. REACKHOF: I just wanted to draw your attention to -- at the back of the room we have a printout of various environmental remediation documents. These are all duplications going to the library. So if all of you would like to pick one of those up you may. If you would like any of the documents that are listed, feel free to

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give me a call and you can come pick up the document you

would like.

MR. KERN: Thank you. Any other announcements before we get started? All right.

Committee reports, I don't see Mark here at the moment. He usually gives our committee report. We have had a variety of meetings over the last several weeks regarding the status and discussion about the remedies on certain sites, so I'm going to be giving a little bit of an update on that. If and when Mark arrives we can get to him for any committee reports we have. Any other committees caring to report at this time? All right.

Item 5, Status Update on the Main Installation sites. As I mentioned, there have been a number of discussion meetings. So far no daytime -- there have really been no daytime meetings yet, but those may occur on a variety of sites. And I have done a power point presentation that I am going to run through. And I hope -- this is not really my presentation. RAB members have not been able to gather to prepare for this, but if you have any quick thoughts you would like to add as I am going through this please feel free to add them.

This is not meant to be an exhaustive discussion of sites we've done previously, but these are just for the RAB members who have not been attending these meetings. We

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have a very full agenda. We don't necessarily want to get hung up on these sites. We will try to go through this and if you have any additional comments please let me know. All right.

So tonight we're going to review the sites that

have been thus far reviewed. Just to remind you, the RAB reviewed the Alternate Remedial Action Document created by EKI in 1998, and we came up with an unusual sort of discussion format about these sites. It turned about 32 of those sites we felt -- I got this exactly backwards. 32 of the sites needed "no discussion;" about 8 needed "some discussion;" and 5 we thought needed "quite a bit of discussion."

And so we're going to talk about some of these sites. All of those numbers actually changed around once we started discussing them. Just for review, these are the general watersheds we're looking at: Fort Scott, Lobos Creek, Coastal Bluffs and Tennessee Hollow. I'm going to try to follow in that order to keep it according to how we've been looking at them.

First one is Fort Scott which is in that position. Keep that in your mind. Here is an overview map of it. So the sites that we've discussed within this area so far are Battery Howe Wagner and Landfill 4. Any other sites anybody can think of? I think that's it. Oh, and Building

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669. Okay.

Battery Howe Wagner is in this position right here. This was one of our "much discussion sites." It's a battery. There may be some debris in there. There are issues of Hexavalent chromium in the groundwater and carbon at the time in the groundwater. So the discussion around this site was to look at the at the remedy. This is just to remind you of what the site looks like. Here is the

battery. Underneath this mound, that's another view of it looking basically from northeast backwards. Here is another view and we can maybe see some stuff leaking out of the site.

The Trust recommended alternative at this point is to construct a permeable cap over this site and that is to use the soil that is currently in place. There will be additional groundwater monitoring of this site. So some of the issues that have been raised in our discussion meetings are: what is the potential for the size of the actual waste in this area to be reestimated and possibly what is the remaining chemical of concern, carbon tetrochloride?

Is this being possibly considered a new site since we're looking at it away from this site, looking for the source of it? So Battery Howe Wagner is being at least currently looked at to cap it with the soil that's in place and monitor the groundwater. RAB members want to look at

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the size so we can compare clean closure to the cap. Any other comments RAB members want to make?

Landfill 4 is in this position. The Trust did a variety of trenching at this site and found that perhaps the eastern half of the landfill is relatively, if not completely, clean. There did not appear to be debris in this site or landfill that was confirmed debris on this side of the landfill. And there were pesticides confirmed in that side of the landfill.

So the remedy for this site -- these are pictures of the dead trees we keep showing over and over. So the size of the landfill is potentially reduced as well as the

chemical waste characterization that went on. The remedy is clean closure. We may get lucky and find there is not as much waste there as originally thought.

MS. WRIGHT: We are missing what you're saying when you turn your head.

MR. KERN: Thank you. Okay. Moving on to the Lobos Creek area, which is in this position. We have a variety of sites here such as Landfill 10, Graded Area 9, Landfill 8, Mountain Lake, Building 1750, the Nike facility, Nike Swale. All these sites are in this area and a couple of them, Landfill 10 and Landfill 8 were "much discussion" sites. These are some of the resources that we're trying to protect in this area of Lobos creek. Here

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are a couple of nice pictures of Mountain Lake.

Graded Area 9 is in this position across from the Nike Swale, Nike facility. There was some trenching done here by the Trust and I also looked at the trenches and it appeared that there was not any rubble or waste visible in those trenches.

Landfill 8 is in this position and there is, of course, the issue of the cemetery underneath it. Here is a photo of Graded Area 9. The issue here is that it's slated for open space restoration. The remedy is currently no action and as of our last working group meeting we understand that the board for the Trust is reevaluating or looking at the reuse for this area. So we understand from Bruce that we will get a report back from him within -- at least at that time, it was a week or two. So we are

waiting for that.

We also understand that groundwater wells in this area have been drilled to evaluate potential impacts from Graded Area 9, but these have all been dry. It's possible that in the next groundwater sampling quarter there might be water in those wells that could be evaluated so we can understand if there are any potential impacts.

Landfill 8 is where the cemetery is. Again, it is slated for open space restoration. The remedy is a permeable cap with soil. Again, the Trust board has asked

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to reevaluate Graded Area 9, Landfill 8 and 10 for reuse. The content of Landfill 8 remains unsampled and there is desire on the part of RAB members to get a cost comparison of the reduced size, potentially reduced size, of Landfill 8 so we can evaluate the clean closure option.

Any additions by any other RAB members?

MR. BERMAN: Do you want to comment on what the Trust is considering as the other use than the original open space by the 8 and 9 area?

MR. KERN: My understanding is we were really just asked by Bruce to hold off for a week or two. He was having discussions with the Trust board that was our understanding, and RAB members at the last meeting were happy to give him that time. Other comments on 8 or 9?

Landfill 10 is in this position. This is a picture of the parking area and Bruce is doing additional looking at utilities in this area, further investigation. Here is a photo. We have yet to discuss this site in groups. So that is going to be discussed.

Nike Swale is also in this area. That is a discussion, I believe, we are slated to look at tonight. Going on to the Coastal Bluffs, in this area. This is an overview map the sites which are located here, here, here, up and down the coast. This is a picture of the coast.

The two sites we discussed in working groups were

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Disturbed Area 3 and Fill Site 5. This is a picture of Disturbed Area 3. The landfill is in that position. This is down in this area looking down the hill. This is sort of over this steeper zone, looking down at debris, down in this area. This is sort of the sideview of that slope. This is some of the debris down in the bottom area. These are other photos of the debris, and I am showing the seep area that is running down.

Here is the seep as when it is flowing down to the beach. So the Baker Beach, Disturbed Area 3 is back up behind these trees. The remedy for this area is capping. And some of the issues that have been raised by RAB members are: what would be the feasibility of clean closure be or looking at perhaps a reduced landfill size if investigation were performed to really understand the limits?

Other comments by RAB members? Fill site 5. We looked at it and discussed some new data. The Trust drilled some groundwater wells. The remedy is clean closure and RAB members concur with that.

Tennessee Hollow is the final area. This is an overview map. The red is generally the contamination sites. This is the possible corridor in that position.

Fill Site 1. This is one site we talked about in detail. There is a photo of it. This is kind of looking down from the west to the east of the fill site. The Trust did a

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variety of trenching in this area and it is possible that this site may be reduced in volume. This area in the far eastern side may just be fill and not contaminated fill. So the size of the landfill may be reduced. The remedy is clean closure and we are concurring with that.

The site will be left. The excavation is yet to be determined and how it will be left. Fill Site 6 is one of the much to be discussed sites. It looks something like this. And that site has yet to be discussed. Landfill E is here. This is Pop Hicks ball field. Here is an upgradient photo showing the water collecting behind it and downgradient of the landfill with water coming out of it. It is yet to be discussed.

So we have got the Public Service Health Hospital sites briefly on hold. We are making progress on the other sites and we want to continue to thank the Park Service and the Presidio Trust for having these discussions and attending them and engaging us in this conversation. We appreciate it. Any other comments by RAB members?

That brief presentation probably covered 18, 20 hours of discussion back and forth. So it was rather rapid.

MR. NELSON: We also want to thank the regulatory agencies for continuing to support this process that we're going through with the RAB and all the other

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stake holders and you for coming out. Thank you very much for continuing to come and we expect to see you at the meetings coming up.

MR. KERN: We are now moving on to Item No. 6, Regulatory Agency Status Update. And first is Bob Boggs with DTSC.

MR. BOGGS: Thank you. For those of you who haven't met me yet, I am fairly new to the project. I will be replacing Henry Chui and he most likely will not show up for any more meetings. He is busy on another project. Since I am new I have been working rapidly to try to absorb the amount of information that's needed.

I have participated in the weekly meetings. I think those are fantastic. I think it is the way the Trust gets information from everybody here. There is great work being done by everybody and a lot of the issues that would come up in the FS are being addressed in these meetings. It is also very good on getting me up to speed on what is going on at all these sites. So I want to pay tribute to everyone doing the work on the meetings. I will be continuing to attend those.

Jim and I have started, on a weekly basis, coming out prior to these meetings and doing site inspections. We visited Baker Beach, Fill Site 3 and Fill Site 5 to get an in depth view in detail on what's going on. Last week we

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hiked up to Lobos Creek, Mountain Lake, Landfill 8,

Landfill 10 and the Public Service Health Hospital.

Also, with the work that we're doing with DTSC we engaged in a lot of document review to support what is going on here. We recently finished the review of the Contingency Plan and the Commissary Seeps, and we're also getting preliminary sections of the FS that we will be commenting on as well as reviewing a lot of the background data and reports to review these things. That's basically the status of what I've been doing with DTSC.

And one thing I wanted to let everybody know is we are a public agency, so public members as well as anybody else, if you have questions of us, of the regulatory agency, please feel very free to contact me and if I can't answer your question hopefully I can put you in contact with somebody with expertise in the area that could answer the questions for you.

MR. KERN: Thanks, Bob. Any questions for Bob? Let's put him on the spot. Jim.

MR. PONTON: I have to say I am enjoying working with Bob. Linda is still in the picture. As you know we split the site in half and a lot of the activities have been centered on the western side. The western side of Highway 1 is mine and she has been talking with Bob about petroleum. I want to thank Jennifer, Brian and

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George for the site walks we went on last week and this week. It was great to see the sites in the field and I look forward to doing that with Bob and with RAB members who we will try to work that out with, thanks.

MR. KERN: Moving on to Item 7A. It is the
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Project Status Update with George on the petroleum program.

MR. FORD: I can't talk until I get my slides. Actually, people who have seen me here before know I can talk whether there are slides or not. If I have slides to work off of it may cause me to talk less, so it's worth waiting. Let's start talking about the skeet range. If you could ignore -- just for background, we discussed most of these points before, but the Crissy Field RAP required cleanup. The skeet range towards the end of Crissy Field, the Army cleaned up to the high tide line.

In 1998, the Trust inherited the responsibility to clean up on the bayward side of the high tide line, which is basically the beach. Treadwell and Rollo is the consultant helping us on this. They completed field sampling out at the beach in the skeet range area in the last couple of days of August. So they have analyzed those samples and have actually put together a draft report we are still reviewing.

What the samples tell us are that at the east end of the large rip rap area we have PAHs that stand forward

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are polycyclic, aromatic hydrocarbons. They are things like kryzene, benzene, pyrene and a bunch of other things, some of which are known human carcinogens. Those PAHs are thought to result from the skeet target bird fragments, the little clay birds that they shot in the old days. The actual binder that glued the particles together to make the birds contained these PAHs. So where you find the skeet bird fragments, you sometimes find PAHs.

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Our samples on the beach show PAHs on the west end of the rip rap. While we were looking we found heavy oil. This occurred at the east end of the rip rap area and this was a bit of a surprise to us. We were looking for PAHs and we found oil instead. What the Trust is proposing to do for both the PAHs and the heavy oil is to dig it up and get rid of it, which happens to be my personal favorite solution to any problem.

If we go to the next slide we can show you where these things are. The pale greenish-blue field shows where we did the sampling at both ends. This field right here is a bunch of rip rap, big blocks of concrete and rock that are laid on the beach to protect it from erosion. The dark gray areas are the areas cleaned up by the Army in 1998. So we sampled in the general vicinity of the pale blue-green areas. The red spots are where we found chemicals above the action levels.

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In this area we found PAHs, which we believe result from skeet fragments. And at a depth of 3 to 5 feet in a couple of different locations, they exceed the cleanup levels. Where we found the petroleum is over on this end. Now so far we haven't found any skeet fragments over here, but we did find heavy oil that exceeds the action level.

So we propose to clean both of these things up by essentially excavating and removing. The excavations would start out having a shape similar to the red areas shown on that figure. Of course, once we start digging we would be testing and inspecting the holes as we go and they might become larger as we take the contents out and try to get

them all.

The current status is we have a draft report from Treadwell and Rollo that the Trust is reviewing. We are going to ask them to add a few more things to it. We will review it when we get it. When we are comfortable with it we will send it out so everybody else can take a look. That should happen in the next couple of weeks.

The next steps we are working on are permit applications. We require something like three or four different permits from different agencies to work on the beach. So we are putting those applications together and we will be submitting them later this month. We will be developing a work plan for the RAB and regulators to review

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that will describe how we propose to do this digging operation. And we will also be putting together a bid package so we can get a contractor on board to do the work. We expect to bid the job out probably in December or early January, and we would actually be doing the cleanup in the first couple of months of 2001 because our goal is to get the cleanup finished before the grand opening ceremonies for Crissy Field, which will be happening in April.

MR. ANDERSON: George, what is the physical nature of the heavy oil? Is it coating the grains of soil?

MR. FORD: The ones I looked at looked like what I will call a tar ball, you know. It's beach sand and in the area where the petroleum occurred is kind of a mix of beach sand, heavy rip rap, and there is also some bits of clay soils that look like they are like probably fill

that was dozed out towards the bay from the center of Crissy Field.

MR. ANDERSON: But it doesn't look like it would migrate?

MR. FORD: No, this stuff is very heavy. The samples I looked at are actually in a solid form. It looks like tar. The sand sticks to it, but it isn't a liquid. It's pieces you can pick up.

MR. ANDERSON: So you are only proposing to clean it up to the edge of the river?

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MR. FORD: Well, we are still working through the details on that. I think what we will propose -- we will go 5 feet into the rip rap. The rationale being what we want to do, is if we clean up back at least 5 feet into the rip rap we will be -- you are not going to have human exposure from tar balls or heavy oil that is under the rip rap. And the other thing that is working here is the rip rap is sort of holding the contours of the beach together. So we are somewhat reluctant to pick it all up and mine out underneath it. That would be a very large project.

But again, we are going to be looking at all this stuff on a work plan, so the details are fuzzy right now, but we will put it in a draft work plan and you can look at it and if you think we got the details wrong, I hope you will tell us. We are going to try to get it right. I think it will be a good work plan, but if you don't like it let us know.

MR. BERMAN: What is the approximate depth

of the heavy oil?

MR. FORD: It's actually fairly shallow where we have seen it. The place where we really encountered the visible heavy oil is where there's a little walking path right in that area where there is a fence surrounding these dunes. These are a bunch of restored

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dunes. There is a fence on the bayward side of the dunes and there is a 6-foot wide foot path between the fence and the rip rap, and that is where we hit the oil.

And it's -- we couldn't -- I think the deepest sample we got in that area was about 3 feet. We were trying to sneak the sampler through the boulders and chunks of concrete. So I guess the truth is I don't know how deep it goes. What we would propose is when we start digging there we will work from the surface and go down. We can't really dig -- we're right next to the bay. We can't dig below the water level there, but presumeably if the contamination extends down to the water level, we will go at least that low.

So it's another one of these things where I can't tell you exactly how deep it goes right now. Once we start doing the cleanup I will have a better idea.

MR. O'HARA: Just a point of clarification, the hits that you have experienced are they in the rubble or are they at beach level or below? And the reason I am asking the question is if this is a very heavy petroleum product could this be a bunker that has washed up on the beach or is the substance itself in the rubble?

that. The tar balls that I saw in the couple of samples really do look like something that could have washed in

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because they are rounded. They have the look of something that was sort of gummy and then got rolled around and then that's what gives it a spherical shape.

But if you go out to the site I can also tell you that just north of where the Army finished their cleanup there are exposures of soil, kind of a clay soil, that's got a lot of what looks like a clay fill. It has a lot of brick and small pieces of concrete and other junk in it. It's clearly not beach sand. And I think there is some possibility that the petroleum may be -- it may not be a tar ball that floated in off the bay. It could also be associated with this fill that occurs in small exposures out there.

So again, it's another one of these things that we will -- I think once we start digging, it will probably resolve itself reasonably well, and we will be able to extract visible tar balls. Wherever we see them, we will take them out of this fill. Once we expose more of it and it looks bad or suspicious, we will be in a great position to just take it out. There is only a thin strip of it anyway.

So I mean -- I hate to be projecting so much uncertainty, but we know pretty much where the problem is in terms of lateral extent area and I think we can get it out, but the source -- you know, the skeet we know where

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that came from, but the petroleum I don't know. You know, we have some that are easy, but at this time we don't have enough information to confirm one source or another.

MR. O'HARA: This is -- everything else is upgradient and I am wondering if this is another seep or a migration.

MR. FORD: I don't think so just because the Army -- this is all new imported sand back here. The Army dug a huge hole and took all that stuff out because it had skeet fragments in it and they imported clean sand and backfilled the hole. And the limit of their excavation is actually marked now, so even if it is the result of a spill that occurred on land on Crissy Field, the only thing that is left is like the last 5 feet of it at the very north extent. Just because we know that everything to the south has already been cleaned up, the Army took it out.

Any other questions about this one? Okay. We can go on to a few other ones. The Commissary, which I usually spend a lot of time yacking about -- let me go through it quickly. The Water Board has reviewed the work plan that we put together essentially to dig up the contamination and get rid of it. So we are moving forward with that plan.

We have a job walk for interested bidders occurring tomorrow morning at 10:00 a.m. The bids will be due November 28, and we expect to make an award within a week

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after that. So the award will occur in early December. We

were pointing towards actually starting to do the cleanup in January, as early as we can in January. It will probably take roughly between a month and six weeks to do the whole job.

As you may recall, it has to be done in two phases. We will do some cleaning up in the parking lot then backfill that hole and we will reroute Mason Street through the cleaned up area and then we will clean up what is under Mason and eventually backfill that hole and restore Mason and the bike path. It will take between a month and six weeks to do that work.

Other things that we have going are we are starting initial work to update the Army's Corrective Action Plans for Buildings 1065, 207, 231. Those Corrective Action Plans were never approved. The Trust will be updating them and discussing the remedies with you and the regulators, and we hope, finalizing new Corrective Action Plans in the first half of next year. And we hope to start one of the remedial corrective actions, most likely Building 1065, next summer.

HLA, Harding Lawson Associates are one of our architect/engineer firms. They are on board to help us with these Corrective Action Plans. The other thing we are doing is for the what the Army called "mini-cap sites,"

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where they took a tank out or did petroleum cleanup and they didn't completely finish it. They put together what's called a mini-cap, which is a small permeable cap. The Corrective Action Plan will deal with those sites and the tanks -- we are in the process of grouping them together

because they are small sites. We need to do a whole bunch together.

We are trying to come up with a rationale method for grouping them. We have removal and cleanup contractors on board so we hope to get that work going in the first half of 2001. We don't know exactly when, but we will get it going. So that's where the petroleum program is. Thank you.

MR. BERMAN: Is there a document that describes all the petroleum -- all the sites where a cap is being considered for petroleum?

MR. FORD: That's a good question. I know there is a base-wide Corrective Action Plan that the Army put together, but -- Brian, do you know, is that comprehensive?

MR. ULLENSVANG: I don't think it fully lists all the sites for a cap. It's a fairly numerous document. There are a number of different study sites. I think we could identify the cap sites, but I don't know that there's a single document that conveniently lays it

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out.

MR. BERMAN: It would be nice if there were a listing of all the petroleum sites and then those which there is a cap under consideration or developed so that we can see what is left, what the overall -- the overview of -- the whole petroleum exercise seems to me like something that might be useful unless it's already there and I haven't seen it.

MR. FORD: If it's already there I haven't seen it either. I would agree with you. I actually think that the fact that -- it's such an obviously good idea I can't believe I haven't thought of it already. We will put one together. I mean I think that would be a good list.

MS. REACKHOF: To date we have a pretty good idea both from past work done by the Army and where we stand on the petroleum program. And we have a listing of all the sites and we can easily get you a printout by the next meeting of where a lot of the base-wide caps would probably end up and where caps could be. So I can get you a printout of that. It's not a document per se.

MR. BERMAN: Right. I was just thinking it would be a more powerful documentation of the petroleum exercise to list them all, show the caps, and just kind of have an overview document which says what is the petroleum problem, where is it, what has been selected as a cap and

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what might be further investigated. This would be sort of a really useful overview of this because I think you do have most of the information as you say, but it just hasn't been put together in a comprehensive document so that someone could look at this problem and say, "The Trust has covered it and here it is."

MS. REACKHOF: What we could do is maybe get some ideas together and get some more input from the RAB and get back to you on that. It is just finding the best way to bring all the information together.

MR. KERN: Other questions for George?
Thanks, George.

Moving on to the project status update, CERCLA Program.

MR. NELSON: Thank you, Doug. I have been instructed to apologize for this horrible display of electronics here. It was working before everyone showed up. I am going to talk briefly about four major ongoing projects tonight: the Main Installation, the FS, the Presidio-wide Contingency Plan, the Presidio-wide Quality Assurance Plan and the Presidio-wide Groundwater Monitoring Program.

My goal after this RAB meeting is to no longer have items 2 and 3 on the list because they have been showing up quite a bit and I believe they should be done by

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December 12th. We have been working on reviewing a number of sections of the Main Installation FS as well as having these numerous meetings that Doug and other folks have discussed this evening. To date we have issued Chapter 6, which discusses background metals, soil and water at the Presidio.

And we are -- also just today we mailed out Sections 5 and 7, which tie in to Section 6 because they discuss the calculation of preliminary remediation goals for soil and water and also remedial action objectives in Chapter 7, which will be essentially establishing proposed cleanup numbers for various contaminants. We wanted to have those documents out to you for the purposes of reviewing them while we're going through the discussions of remedies because all of these issues tie into the basis for

why we made these cleanup decisions and why we are presenting them.

And just as an FYI you have actually received tables and figures from a lot of these documents already, so it will be a matter of reading the text and putting it together. We have also issued a draft Field Sampling Implementation Report for the Main Installation sites. Those were all the sites that were sampled this summer that I gave a presentation on back in September, I believe. And we are writing comments on that right now.

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We intend to reduce that as a stand-alone document, so if the regulatory agencies and RAB members would like to provide comments on that we would be glad to incorporate those into the document. If you recall from the work plan that we discussed for the FS, it must have been seven months ago now, we had four technical meetings that we were going to be holding with agencies and the RAB to go through sort of the big picture items of the FS, the applicable or relevant and appropriate requirements or ARARs, that we discussed will probably be held later this month or early next month.

The Trust and the NPS have been meeting to discuss ARARs. We wanted to meet with the regulatory agencies and discuss them with them as well. So we are moving forward with that. The actual remainder of the report, which would be Chapters 1 through 4 and 8 through 12 along with the appendices, tables, figures, cost summaries, et cetera, we anticipate having out for review about the second week of January, so around January 8th.

We are at this time internally reviewing the document; Brian and myself and other Trust staff. And we are incorporating our comments into the document as we meet and also we are using these meetings with the NPS and RAB and the agencies to highlight issues of concern and to go into the document. And another item that was actually

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released in advance, and I believe we issued 12 copies of the details of cost estimates that will be coming out in the FS to Doug Kern last week. So if you need to get a copy, give him a call.

MR. KERN: I brought them tonight, so those of you who would like one see me.

MR. NELSON: Prior to that we issued summary costs, which didn't go into great detail. It was essentially comparing the costs of the different alternatives and there was a break down of the costs, but these are more in detail and will allow you to see how the costs occurred for each of the remedies derivations.

Another item we are working on, actually with our consultant with input from Trust and staff, is the Responsiveness Summary to the Army's Final FS. This document should be available by probably the end of this month or perhaps early next month. And getting this out about a month in advance of the FS will allow you to sort of look at the ideas that are being tossed around on how we plan to deal with the shortcomings of the Army's FS and how we plan to implement the remedies that were requested and commented upon by numerous commentators three years ago.

That wraps up the Main Installation FS. I'm going to talk more about some of the other remediation projects unless someone has a question on the FS.

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MR. BERMAN: Two things, in the comprehensive field sampling is that just for the FS sites or is it in general one for the entire Presidio?

MR. NELSON: The report I refer to that came out as a draft is for selected Main Installation sites. We had presented a Field Sampling Plan for that at a meeting, I believe in April. And so it's for approximately nine sites: Battery Howe Wagner, Fill Site 6, Landfill 4, Fill Site 5, Baker Beach 3 and 4, Nike Swale. I think that's all of them. So it's selected sites where there were glaring data gaps that existed and we needed to gather those data gaps before implementing the FS.

MR. BERMAN: What is behind my question is perhaps a lack of knowledge here, but wouldn't it be of value to consider all the field sampling you have to do not only for the Main Installation, but there are other field samplings you have to do because presumeably this is a fairly big exercise and it seems -- this is my ignorance here -- why is it only the main Installation Sites and you are not considering the general field sampling? Maybe you have said it already and I just don't recall it?

MR. NELSON: There are a number of other sampling programs that have gone on and that continue. There was sampling at the Public Service Health Hospital that occurred this summer for the same reason, collecting

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data gaps to amend the decision. And also there is an ongoing groundwater monitoring program that gathers data.

As far as other sites that aren't in the Main Installation or that did not receive sampling this summer, I can answer your question in two ways. The Main sites that either require additional sampling or don't will be dealt with at the time of the remedial actions. In other words say we're excavating the sites. We have a rough idea from Army estimates where it ends. We begin digging and we find contamination. We will sample as we go. When we feel we have found the contamination, we stop, which we have talked about in the past.

And maybe things such as geotechnical studies limits of landfills if it's going to be capped might look for the determinations like that. So as far as the other sites go that are not being addressed, in addition to the Main Installation or the Public Service Health Hospital there are a variety of firing ranges that will undergo a remedial investigation FS. And when we kick off that project, as it falls on the schedule, we will write a sampling plan and investigate those sites and on and on with the schedule.

MR. BERMAN: Your approach is you think it is better to specialize the field sampling for the given exercise like The Main Installation sites rather than have

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a more broad collective action, which is going on sort of

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for the Presidio as a whole activity?

MR. NELSON: We sort of settled it up that way. Normally when a big sampling program takes place it is normally associated with an investigation or a report, and in this case it would be the FS. In the case of the firing ranges it would be that report. Also, as I've said many times, while we feel that the Army's excavation of the Presidio was somewhat inadequate or not complete we did agree with the Park Service and other stakeholders including our insurance companies going forward with the cleanup and not looking for contamination. We don't know -- we want to continue to move forward with the action specific sampling as needed.

MR. BERMAN: One sort of minor question, again in the financial reporting on the remedies is each specific site examined for its cost? Is there any attempt to do an economy scale or integration to take all these sites over a certain period of time? There might be some benefits in treating them in a multiple action rather than in terms of single action.

MR. NELSON: I don't believe that has been done. However, we can address those sites and the schedule we have put out has attempted to address sites based on priority sometimes geographic and sometimes by agreements.

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We have, for instance, most of the coastal areas of the Presidio are slated to be cleaned up first. So that leaves Baker Beach 1 and 2.

Baker Beach 1A, we may be able to realize those economics of scale that you mentioned. However, at this

time each site is being looked at in an individual sense, but we sure hope to apply cost savings as we move forward. Does that answer your question?

MR. BERMAN: I really appreciate that you're doing that and I was wondering whether, since you've thought about it, do you have a ballpark figure as to what you might be able to save as a percent?

MR. NELSON: I really don't have a figure at this time. Feel free to look at the cost estimates that Doug has. If you have any specific questions I would be glad to talk to you about it.

MR. BERMAN: I don't want to do that, but if this is something that you look at the whole problem in some sense and see how you can combine things in certain ways there could be savings.

MR. NELSON: Yes, absolutely. I think also, to sort of toot my own horn or George's or anyone else in the Presidio Trust, there are limited resources available to implement everything at once. We are only human. As nice as it would be to be able to do everything at once,

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there are a number of other things to consider. Also we are in a national park and disruptions are considered by the National Environmental Policy Act and Historic Preservation Act.

We also have to take into account we are protecting natural resources and allow users access to those sites and nearby sites. If we were to implement excavation of seven or eight landfills at once that may not pass the NEPA

process. Based on the volume of material, the amount of traffic problems, we could be going on through the nesting season for the birds. There are a variety of issues for that sort of thing. While in a perfect world you could come in with a steam shovel and scoop everything up -- keep in mind -- our neighbors outside the park and park users and our collaborative Park Service and other Trust partners need to keep that in mind.

Anyone else have any comments or questions about that issue? Brian, did you want to add anything?

MR. ULLENSVANG: No.

MR. NELSON: I think I'm talking now about the other remediation projects, the non-Main Installation FS projects. As I mentioned there was a field sampling implementation report for those Public Service Health Hospital sites that were sampled this summer and it has been going through internal review and comment with the

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Park Service. And I believe we are in the process of responding to those comments and those will be out by the end of November.

I am assuming that will be a stand-alone document and we will be looking forward to the comments by the agencies and the RAB. Also the draft Contingency Plan, which was released, I believe, probably over a month ago now or approaching a month -- I know Bob mentioned he has looked at this document. At this time what we can really receive comments on and make changes to are the procedures that we would be implementing and the procedure behind it.

The actual cleanup numbers and things like that

actually won't be approved until the Main Installation is approved, so essentially this would be a working drafted document we could use if we were to come across any unknown contamination. We are looking for comments on those if you would like to submit them.

MR. KERN: Is this the Contingency Plan that we may have already submitted previously?

MR. NELSON: Yes, I submitted it about a month ago. What everyone probably received before that was an outline to talk with the approach of how it was going to go and eventually we released a full document that had cleanup numbers, background metals, figures and things like that.

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MR. KERN: If we read that and still have similar comments do we submit the old comments? I'm just trying to think of whether I've looked at this thing or not.

MR. NELSON: I'll take a look at your email you sent on the outline and -- see because it's possible that some of those comments were responded to in the plan. So you might want to take a look at it.

The final issuance of the Presidio-wide Quality Assurance Project Plan should be coming by early next month. We had comments from every agency and we carefully looked through them. We are preparing a responsiveness summary to those comments and we are responding to those comments in the document. We will get you that as final in early December.

Next item is the Presidio-wide Groundwater

Monitoring Program. Our consultant who has been sampling since June 2000, of Landfill E has run into some unfortunate personal travails and has held up the report. However, we have received a draft of it recently and are currently taking a look at it and intend to pass it on to the Park Service. And when those comments are incorporated we will get it out, possibly by middle of December.

And we are currently going through, right now, the Presidio-wide program. That is going to pick up -- that we

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have been reporting on. I believe our consultant, Treadwell and Rollo, is writing a field sampling plan and a field and safety plan. They have done a well tour with one of our staff and they are prepared to move forward. Once those documents are reviewed and approved they will go out and start the sampling. I am saying early December, but I am guessing probably more like January for the first quarter of the Presidio-wide sampling, which I believe is about 90 wells.

So this is substantially more than what we have been doing recently, which are in the four other documents. That is pretty much it for now. Anyone have any questions?

MR. BERMAN: Could you comment on what is going to be tested, looked for in the groundwater sampling?

MR. NELSON: Actually each of the sites has specific requirements that were set forth by the Army and approved by the Agency in 1996. So, I mean, generally they vary from site to site. At petroleum sites you are going to find more petroleum.

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MR. BERMAN: That's unchanged then?

MR. NELSON: We feel like we've made some improvements to the program, which we have yet to see in the implementation of it. But we tried to simplify it and not make it as cumbersome. It was very complicated to see what was required. We are hoping if we get a consistent

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program we can look at the data in the long term, monitor for and, of course, as decisions are made about some of these Main Installation sites we will have a better idea of whether or not we will have to continue monitoring at all of the sites. Okay? Thanks.

MR. KERN: Any other questions for Chris at this point? Thank you very much Chris. We are moving onto Item Number 7C, the presentation on Mountain Lake restoration and remediation.

MS. WILLIAMS: I am doing this low tech, so I have a little piece of paper. I actually don't think I need the pointer. I'm Tamara Williams. I am the park hydrologist for the Golden Gate Recreational Area. I am going to give you an overview. Is this okay here? This is a history of the lake itself, where we are in this project, and then why we are talking about this at all.

We are here to talk about some proposed remedies. Here is mountain lake. If you don't know where it is, it's at the very southern edge of the Presidio right along Park Presidio. If you come out of the tunnel heading south and you look to your left and through the trees you can see Mountain Lake. This lake is about 2,000 years old. It's a

natural lake. It is the only naturally occurring lake on the Presidio and is one of the few remaining in San Francisco. It's groundwater fed so it doesn't really

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have a stream outlet.

It is there and it's been a water supply for the Presidio. So it's been pretty well taken care of as a natural feature. It's original depth was about 30 feet deep. Now it's about 9 feet deep and that is one of the big reasons why there is a lot of attention around the lake. There is 20 feet of sediment in the lake. The first 7 or 8 feet accumulated over about 1,800 years. The next 7 feet developed over about a 100 years after the Europeans arrived, and the next 7 feet developed over the last 100 years, largely related to this last bit to the construction of Park Presidio.

You probably can't see this, but the original lake extent went underneath Park Presidio. So when Park Presidio was built, about 40 percent of the lake area was filled. It took the muck out of the tunnel and made it into a fill for Park Presidio so people could get onto the Golden Gate Bridge. That happened during the late 1930s. This lake, despite the fact it's kind of filled in and has Park Presidio along one side and kept in by the community, is very well loved.

There is a friends of Mountain Lake group, a lot of neighbors and others that are interested in the lake. There are a lot of educational programs about the lake talking about water quality, monitoring, lake

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beauti fication, some micro-organisms. And there are some nice areas here where people walk their dogs around the edges. It gets a lot of use.

About five years ago the community got really concerned about the lake. There were some algae blooms and fish kills. It stunk because of the algae dying and it gets ugly, everything smells bad and it's kind of murky. People were just really concerned that this lake wasn't in good shape. It was very shallow and they were concerned, and justifiably so, with it only being at about 9 feet maximum depth. At any moment it actually could fill in with emergent vegetation.

Now if this were a naturally filled lake -- in other words if the sedimentation had happened the natural way and it wasn't exacerbated by human activity such as all the overgrazing in the 18th century, the clearing of land, the development of San Francisco which contributed settlement to the lake -- the park sincerely would probably let the lake fill in and turn into a meadow. And that's what happens in the higher mountain lake, but here because it was caused by all this human activity the Park Service took an active role in the public process of thinking about what we might do to improve the quality of the lake.

So in 1995, they brought in experts and talked about the what the options were to restore Mountain Lake to

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something more like it was in the past. Well, it was a

great plan, but they didn't have any money. So what do you do? In 1997, perhaps particularly thanks to the alligator that showed up in the lake, attention got focused on the lake and the San Francisco International Airport was looking for some projects and so they gave half-a-million dollars to the Parks Association, the Golden Gate Parks Association, to develop a plan to improve the quality of the lake. They provided funds for some small wet areas. They filled in around their existing runway.

The Parks Association is taking the lead as project manager working with the National Park Service. I'm the project manager with the Park Service working with the Association and the Presidio Trust. At that time they all got together and we've been developing this plan for what we had to do to restore the lake.

And the three things that we are focusing on here are improving the water quality, in other words, trying to get the lake a little bit deeper so the temperature might be cooler; remove some of the nutrient sediments from the bottom of the lake to get the edges less traffic. So we would consolidate on people a little bit and also the eucalyptus contribute a lot of pollutant compounds to the lake, which contribute to it being murky, and then the darkness is also causes nutrifcation to go on. So the

idea is to deepen the lake. We want to exchange the non-vegetation for some native vegetation, some habitat and then provide better access for the public. Right now to get down to lake edge it's not pleasant and you have to scramble. And it will be better for people to have a more

controlled experience.

So those are the three basic components. The status of the project right now is that the environmental assessment has been issued in October for public review and comment. There are a variety of alternatives that sort of assembled the different things that I described as being what we have to do to make it better. They are discussed in that and if you would like to get a copy of the EA, there is information in the back as to how to get it.

It is on the Presidio Trust's web site. I think you go to [www.Presidio Trust](http://www.PresidioTrust.org), hit library, and I think there's one other step. It's fairly straightforward to get there or I can request it for you. It is due December 15, so if you would like to learn more about that you are welcome to. I also brought copies of a summary sort of a generic summary of the alternatives. There is a stack of those on the back. Some of you might have picked that up already and might want to read it.

We are expecting to have finding of no significant impact based on the environmental assessment. Our hope is

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that we can start construction next summer and go through 2002, but why we're here -- in the process of developing this plan we consulted with a variety of people. We brought in, for example, Dick Tate from Carla Tate to evaluate the stability of the geotechnical stability of the lake and the embankment along Park Presidio. We wanted to make sure if we dredge the lake we don't jeopardize the civilian part of the Presidio.

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We had EKI, early in the process, do some bulk sampling of the entire depth of the sediment so we would have a handle on whether we would have a disposal issue. We wanted to make sure what to do with the stuff when we dug it out. We had Alex Horn, a professor at UC Berkeley -- he is not a limnologist, which is a lake specialist, but he is an environmental engineer that specializes in lake design. He has been involved in this project and has really been instrumental in developing the alternatives.

And we also did that to get a better understanding of the history of the lake so that we would know what we were dredging down to historically and also to understand what the native plant communities were around the lake. We got help from Professor Roger Burn at UC Berkeley. He is a paleoecologist and does primarily pollen studies. So you look at the pollen and the pollens are really well

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preserved especially in lake bottoms. And by studying pollen you can identify what the species were that were growing around a lake.

So now we have a great picture of all the historical vegetation and the lake. In developing the paleology you often couple that with isotope work. So Lead 238 is one of the things you use. So they did lead sampling in the lake. And they were very concerned to find elevated levels of lead in some of the samples of the shallow sediment of the lake, which is what brings us to the proposal for additional sediment sampling in Mountain Lake.

MR. NELSON: Let me give you a two-second introduction here. I know we talked a couple months ago about additional consultants. Dez Carter is with one of the three additional firms we hired back in May of this year and URS is going to be doing this among other projects in the future.

MR. CARTER: Here is another view of the lake. It is about 4 acres in size, somewhere around 9 or 10 feet deep. This is now a beautiful dog-walking environment. So we are here to talk about our proposal for additional sediment sampling at the lake. Now a number of investigations have taken place. As Tamara referenced initially, during the remedial investigation in 1997, the

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Army collected four sediment samples and these were from the 0 to 2 feet of the lake bottom, which is typically where the organisms and lake bottom critters live and those samples were found to be below the ecological risk assessment levels for all of the contaminants analyzed at that time.

They also took surface water samples. Subsequent to that there was additional work continued by the Trust in '98, where additional sediment samples were taken. These were taken with a different objective in supporting the Park Service's enhancement. And Tamara discussed how the Trust was looking to characterize the sediment so that when they looked to dredge part of the lake bottom they could determine what the disposal issues or reuse issues might be for the sediment. These were longer. Rather than 0 to 2

feet, they took typically from maybe 2 to 14 feet, or in some cases as deep as 18 feet.

Earlier this year there were additional samples and this was really revisiting the Army's earlier samplings done in '97. So three additional bore sample composites were done where they were sampling for metals, pesticides and other compounds. And these results were somewhat interesting in that they had been a low level for lead in one of the Army's surface water samples and this was not confirmed in the 2000 investigation. So it kind of closed

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the loop on some uncertainties with the earlier data.

Finally we get to our sort of starting point for our current work. There was a palaeological study. He was from UC Berkeley. He was looking at pollen variations and types of pollen with depth in the sediment and also some isotopic lead dating. And in this course of his investigation he did lead analysis and found some elevated results that were rather at odds with the earlier work that had been done. Now, there are two different boxes. Here this box, the taupe-colored box.

So starting with the olive-green box, this was the one elevated lead result that we found in the '98 sediment sampling. So as you can see it's .3 to 9.78. It is 93 kilograms or parts per million that was analyzed using the EPA Methodology. What concerns us is looking, for example, at this number here 4,133 million grams per kilogram of lead. That was found at the culvert side here and the drain entrance here had elevated lead of 836 million grams per kilogram.

Now one thing we have to get clear about when we talk about these numbers is that the UC Berkeley numbers, the elevated numbers in these other boxes, were not done using standard EPA methodology. In fact, they used a technique x-ray flourescents and they used a different sample preparation, which we will talk about a little

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later. What it means is you actually can't compare these numbers directly. There is a bias that we need to talk about a little further.

Now this, in essence, is the problem we are addressing tonight. It is the meaning and the contamination of some of these elevated results 1,311, 836 and drain entrance from the highway, and 4,000 parts per million here where the culvert enters the lake. Just for reference, the earlier samples in '97, these box samples down here, here, and here were all in locations in which elevated lead was not found and it was well under the eco-action level.

So as we mentioned, the University of California sampled three locations. One is culvert site, the drain entry and there was a core site in the lake. Let's talk about the data issues here.

The key thing that I noticed when I reviewed the data is as an environmental chemist that in working out the sediment samples for the UC Berkeley analysis, they used a technique whereby they heated up the sample and removed the organic component, like the plant debris and any organic matter. They took that out before they analyzed it. So

what that means is if you have a certain amount of lead in the sample and you analyze it, by the EPA standards you would dry the sediment and analyze the lead using the

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conventional EPA method.

Say you found 1 percent lead, if you repeat the analysis in the method using the methodology of the UC Berkeley investigation, because you further reduced the weight of the sample by taking away the organic material, then you have the same amount of lead in that, but the total sample weight is smaller so you would see a higher part per million or kilogram result. That is a key thing to bear in mind when we look at this data. Yes, we are seeing lead, but the numbers are not directly comparable with the prior investigation results.

MR. BERMAN: Technical question here, can you estimate -- when you take a kilogram of the raw sediment before it is heated what is the actual weight loss in the organic material, because you're talking about 2 or 3 levels of magnitude here and in order to justify that as the denominator of changing you would have to have an enormous amount of that material that was organic.

MR. CARTER: That's correct. The effect would be something in the range of 30 percent total weight, something like that would be organic.

MR. ULLENSVANG: The researcher, Dr. Burn who did this, 20 to 30 percent of the weight is what he reported.

MR. BERMAN: Is the back-of-the-envelope

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type of calculation enough to shift the numbers?

MR. BOGGS: The other part that is shifted is the EPA sampling. Often times they didn't do composite testing. They took it at a 4-foot depth and deposited it into one sample. And what the researcher did is he looked at very tiny fractions within that column and within a certain, about a 1-foot range. There was like a 1-inch level where he got the 4000. And so it was in a very small range where they had the high lead.

So in all the other samples they may have missed that one foot or just cut apart that 1-foot section of sediment as the high lead.

MR. BERMAN: So it's the averaging process that went into the EPA as opposed to a geography-specific analysis that was done by the UC people? Is that the origin?

MR. ULLENSVANG: There are a number of factors, those being some of them which are critical to why these numbers would be different even at the exact same location. I think he will talk about the third contributor in the different methodology, which is the EPA method. And those three the components -- even the specific depth versus the larger area, which is conveniently done for EPA sampling, that all contributes. That is why we can't directly say it's 30 percent or a quarter magnitude because

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we don't know what each of the components are.

MR. CARTER: So the sample preparation, and then also this is a different analytical method which we analyze by XRF. It is different from the typical method used by EPA, which would be atomic absorption. It is the method by which you dissolve part of the sample in an acid and then collect an analysis by XRF, x-ray source, and look at the frequency of radiation that comes back in the sample.

That also introduces a bias because XRF will see all the lead in the sample whereas the historic EPA method looks at that material, which can be extracted by the sample workup. The essence -- what I am getting at -- I'm not trying to say that the UC Berkeley data is not useful. It is usable. I'm saying there are data quality issues and it is not directly comparable with the other data that has been generated at Mountain Lake.

So there is a bias and it does mean you have to exercise caution when you look at the UC Berkeley results and try to compare them to an action level or prior results because the results are not directly comparable. That is what I wanted to get across. So what we are proposing -- we have met with the Trust and with the Park Service. Under the Trust direction we are working right now on the sample plan to go out and further investigate what the lead

situation is in the lake sediments.

So the number one objective is, is there elevated lead concentrations in the sediments? Clearly we have cause for concern because of the samples and clearly the Trust wishes to close the loop on that and conduct further

investigation and get a handle on what those contaminate levels are. Now, if we do find lead above the 82 million grams per kilogram, we would like to try to determine what the source of the contamination is and where it is coming from.

And finally the sampling results will also be used in concept with Tamara's -- with the Product Lake Enhancement Plan because, again, when we look at dredging scenarios proposed we would like to know what the possible final estimate of the sediment removal will be. There is a brief description about the new sample locations. The first note there is this boundary here -- I'm afraid it's not entirely accurate -- it is the approximate boundary of the area that will be dredged during the lake enhancement. It was done by hand. It is a little different than the Park Service's boundary.

Inside the purple line is where lake enhancement services will take place. This is the amount of sediment that is going to be removed and looking at this, this is the key sample location here. SS4 is where the culvert

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sample was taken by UC Berkeley and found the elevated lead. So we will go back to that sample location and collect additional sample borings from 0 down to 10 feet in depth. We are also going to take samples moving out regularly from that location to try to see whether there is any indication that the lead may have come from part of Presidio Boulevard, which runs up here.

Now, the data collected by UC Berkeley does, at

least under initial scrutiny, indicate the runoff from the Park Presidio storm drain in this may be a cause of -- the primary cause of lead contamination within the sediment. As a part of our sampling plan we are looking at utilities maps and determining where the other storm drain locations are. There is one here and these two here and here. We still have to confirm on the utilities map or by a photo or site walk.

So basically you have some samples that are more the perimeter of the lake on the western boundary and these generally tie into the location of the storm culverts discharging into the lake. We have additional sample locations more in the center of the lake, which will both help us to determine whether the lake contamination does appear to be coming from road run-off and also will provide us with deeper sediment samples to help with the enhancement program.

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So the program will collect a total of 15 sediment cores and of these we will analyze all of them for lead and other metals with a metal scan and for TPH, total petroleum hydrocarbons. The idea is with the TPH we are hoping looking to see if there are any patterns between the lead contamination and diesel or motor oil contamination that would again indicate the roadway runoff might be the source.

There will be three storm drain grab samples from the inlets. Once those are located -- and again, that will help to correlate the contaminate level within the actual drains themselves to see if there is any correlation

between that and the sediment contaminants at the discharge ports. The way we've structured the sampling program, or the proposed sampling program, is initially all of the shallow sampling of 0 to 2 feet will be analyzed. That will be 0 to 6 inches, 6 inches to 1 foot, and 1 to 2 feet. That is where the bioreceptors are. We will have core samples down to a depth of 10 feet or so and these will be held pending results from the initial shallow intervals. And then with discussion between the Trust and the Park Service will determine what will be appropriate to analyze in terms to characterize both the sediment column and to further look at how the lake enhancement program will be implemented.

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So just to wrap up, I would like to run through how this process will play out as far as the RAB and the regulatory community is concerned. We are currently working on the initial draft of the Field Sampling Plan. We are working with the Park Service to finalize that as soon as possible. The plan is that will be released for regulatory review and RAB review in early December. Once we get the sample plan finalized, we would like to get into the field as quickly as possible.

We are planning on doing the sampling in January. The overall objective is that by expediting this work we will both support the Park Service's Enhancement Plan and also the successful completion of the ROD Amendment. So that basically wraps up what I had to say.

MS. YAROS: I was looking at this map over

my left shoulder and I am amazed at how much of the Lake Presidio Park Boulevard took up. Has there ever been discussion to reroute that section of the boulevard or is it absolutely beyond the scope?

MS. WILLIAMS: It actually has been discussed when we met with CalTrans early on in the process not specifically about that, but about the fact that we were looking at this dredging project that was adjacent to their land and other access issues. My understanding is that constructing elevated roadways, which is kind of what

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you would be faced with here, is an incredibly expensive thing. And this steep of roadway is not on the CalTrans list of high priorities for replacement or repair. So there is not really any other reason to do that. It's a good question.

MS. YAROS: I thought it was an elevated roadway. As I look closer I notice there is nothing to the left as you're driving north. Why would it necessarily have to be elevated? Why couldn't it swing out over to the left?

MS. WILLIAMS: It's actually a steep slope there.

MR. FORD: The Public Service Health Hospital structures start right at the top of that hill. So I don't think there is enough room to push the road to the left.

MS. WILLIAMS: You could probably nudge it a little bit, but I think that the cost and the benefit to the health of the lake would be hard to justify that unless

CalTrans had a good reason to do it.

MR. BERMAN: If you do determine that by the correlation between the hydrocarbons and the lead that it is essentially runoff from the Park Presidio Boulevard, what would be the remedy to chose or -- I don't know if this is for you to decide, but what is the suggested remedy

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to counteract that?

MS. REACKHOF: Obviously, you know, at that point all the parties would meet with the regulatory agencies to identify: number one, what the best way to alleviate this problem would be -- talking to CalTrans or if there are areas, as I was told earlier, that were supposed to have been closed some time ago. There is not supposed to be any surface drainage coming from the roadway. If the source is something we can all work together to ensure that it does not occur, that is our first option.

And then following that you need to look at what are our levels and how can we best work for the further enhancement and ensure that the situation does not continue.

MR. FORD: If I could add something to that. The thinking on this is that it is not -- you know, we are not having new lead deposited on the road because we are not using leaded gasoline anymore. This is a legacy. It is an old contaminate. There may still be lead bearing dust on the roadway. Eventually that will all be washed down or go down the storm sewer. But the hope is that if

you do some kind of a cleanup here as part of the enhancement, or prior to the enhancement, that you won't be suffering ongoing discharge of new lead into the lake.

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MS. CHOW-WINSHIP: I am curious how you determined that it was 2,000 years old.

MS. WILLIAMS: That's based on the isotope work that the paleologist did and also on the pollen and understanding what plants were prevalent, correlating with other areas.

MR. ANDERSON: I had the same comment that George did, that there is not currently lead in gasoline.

MR. BERMAN: Isn't there lead though in tires?

MS. KING: Actually it is zinc in tires.

MR. BERMAN: I know there are some heavy metals.

MS. WRIGHT: I had two questions. The first one is it does sound like Park Presidio is the most likely source and it sounds like that is what you are trying to work toward. Are you considering any other possible sources such as dumping maybe in the past? Are you looking into any other sources at this time?

MS. REACKHOF: I guess at this point we really haven't found any documentation that has pointed to that or that there was any kind of in-depth illegal dumping in the lake by the Army or any other entities. So we have nothing to go on. This is one of the areas we are looking at.

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MR. ULLENSVANG: One thing to look at is in the sampling plan you will note the samples we have set up are not biased to not pick it up if it's just on the highway. We are looking at the other inlet's drainage and are taking samples of each of those and some along the east side. So if it's coming from other sources or homogenous across the bottom of the lake, this sampling is intended to gather that.

MS. WRIGHT: It does sound like that would be the primary source.

MR. ULLENSVANG: You don't know, but this is just in case.

MS. WRIGHT: The second question would have been sort of along the lines of being extra cautious. It sounds like you will be looking at metals and TPHs, the total petroleum hydrocarbons. Are you looking -- at the same time are you getting any other COCs that might be in the samples at this same time?

MS. REACKHOF: At this point those are the primary chemicals of concern that we are going after because we do have previous data, additional data we did as part of the ROD amendment. So we haven't had anything to point us in the direction to start doing additional analyses. We are doing this as a focused effort on new information from the professor.

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MS. WRIGHT: That's what I thought. Sounds

like if it was accidentally found, why not check the samples? Is it that much more costly to check the samples for other COCs that might be easy to catch at this point or no?

MS. REACKHOF: Obviously there is also cost, but that is not why we are doing it. Again, we are trying to utilize existing information. There are data gaps going back and finding there was some source -- if you have an idea of what a potential source might have been used, you would look for that contaminate. The Army did do some sampling of the lake. We did additional sampling through the ROD Amendment and did not come up with anything that identified for us to start an additional full suite of analysis throughout the lake at this point.

MS. YAROS: The first speaker mentioned you eucalyptus trees as being a problem and I have heard several problems being they are not native to the area. Why, if they are causing -- not only that they are not native and they tend to fall over easily in a storm, now they are causing an active problem -- why are they not removed? If there is such a mission to maintain native plant life, why aren't eucalyptus trees removed if they continue to cause problems?

MS. WILLIAMS: Well, in this situation we

are certainly recommending they be removed since they are right on the lake edge and the leaf fall creates a water quality problem. The issue of taking out all the eucalyptus or not has -- it's a much broader issue. The Vegetation Management Plan for the Presidio really goes

into a lot of details and describes areas where they were cultural resources. They were planted as part of the history of the Presidio and there are other arguments of scenic and visual impacts, that sort of thing in some areas.

We focused on removing them in the park. In the natural areas and then in the historic and the scenic areas they are left as part of the landscape.

MS. REACKHOF: It's phase two that you have identified; is that correct?

MS. WILLIAMS: Actually, it depends on the alternative.

MR. O'HARA: I have got a question about the contaminants. Is the proposal to restore the lake in any way contingent upon the quantity of the contaminants, or once identified are you going to remediate the contaminants and the Lake Restoration Plan and go ahead? In other words, if you find, for whatever reason, that the sediments are loaded with lead, is that going to mitigate or exacerbate the Restoration Plan?

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MS. REACKHOF: Obviously the Park Service and Parks Association and Trust are on board with the restoration. We all have a lot at stake. We all want to make sure this goes forward. So that's why we're going back out to do this additional characterization, so we can not only be sure of what we found via our previous studies, as well as how we can help with any of the dredging activities as park administration. So that if we move

forward and identify a problem that everybody will get together to remediate that in a very timely fashion.

MR. O'HARA: One final question is how far down does the lake restoration plan suggest that you remove?

MS. REACKHOF: There are different options that have been put out as part of the Environmental Assessment Plan.

MS. WILLIAMS: The alternatives -- the shallowest alternative is a couple of feet down to about 6 feet as a sort of average depth.

MR. O'HARA: So you are looking at 11 feet?

MS. WILLIAMS: 11 feet total lake depth to about 16 feet total lake depth.

MR. BERMAN: Do you know where the feeding springs are located?

MS. WILLIAMS: There are historic reports of

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where when the lake was drawn down, when it was used as a water supply and during dry times, there were areas where you could see springs, but because the aquifers (?) is a fairly homogeneous sand over the colma formation, its -- there are probably seeps all around the lake bottom. So it's not like there is a single spring that is feeding the thing. There are reports of individual springs seen in the arms, but our conceptual understanding of the system is that much of the lake sides and bottom are feeding the lake.

MR. BERMAN: So knowing that it's about 2,000 years old and its spring fed, is there a theory of

what caused the formation?

MS. WILLIAMS: The formation of the lake?

MR. BERMAN: Yes.

MS. WILLIAMS: The lake appears to be created by a depression in the dune field that was blown over the colma formation and then the dune sand and the colma both are water bearing, so it is kind of a combination of that system that creates a little spot. There is also apparently a peat layer at the very bottom of the sediments. So there is a peat layer involved in holding the lake up there.

MR. BERMAN: So it wasn't an earthquake?

MS. WILLIAMS: We don't really know. You

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never know.

MR. KERN: Seems to me one of the issues that has been of concern at Mountain Lake in the past has been nutrients of various kinds coming into the lake from the golf course runoff. What I mean is if we are going to do the sampling, what additional things can we look at? Would it make any difference if we did? I mean, would it matter if we examined for other things besides metals?

MR. BERMAN: You mean look for pesticides?

MR. DOWNING: Mitrato fertilizer?

MR. KERN: I don't know if those would exist. I'm not even sure if they would -- some of these legacy pesticides that are long lasting in the environment. Would they be in the sediments? I have no idea.

MS. KING: In the sampling that we did back

in '98, was the full core length. So it's not focusing on the upper layer. We did look for pesticides, herbicides nitrates, and such and really we didn't find much of significance in that area. But the caveat is we did do composite sampling to look at the whole column and the Army had sampled for a pretty full suite of pesticides and herbicides in their sampling as well as at a 2-foot depth.

MR. KERN: Could you imagine them seeing pulses of pesticides coming into the lake? Could they be missed by the sampling technique? I have no idea.

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MS. KING: Even the sampling that URS is proposing -- typically you take a 6-inch core and that gets submitted to the lab and depending on the lab -- it will depend on where the actual sub sample goes. In theory they are supposed to get something representative of the 6-inch core. Most labs go and try to scoop in towards the center and take the couple of grams of sample out. So it's -- one could spend a lot of money doing very, very focused inch-thickness depth cores, but I don't know where that gets you. Where at the end they are looking at dredging out probably down to a level below where the pesticides would have been primarily used.

MR. KERN: I guess that really is my question. Let's say there was a lens of contamination, does it really matter? I mean if there is a lens of lead contamination, do we still dredge this out or do we have to go in and surgically remove that separately, or what would have to be done? Does it make any difference? Can we still just dredge it all out and haul it away in one batch,

or if there is a one-inch layer of high lead or high anything else, does that have to be surgically removed?

MR. FORD: I think anything you have -- if you have lead within the dredge area and you do the enhancement, that's going to leave -- you're going to take that out the lens of lead or layers of lead. They are

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perhaps more of an issue in the buffer zone because there is a rather wide buffer zone that surrounds the dredged area and that is an area where potentially you can't rely on the dredging to just take care of your problem for you.

So at this point the hope is that the sampling will reveal what's there and then we can make some informed judgments about what to do, about whether it's okay to leave it there or whether it would be substantially removed by dredging, or whether something else needs to be done.

MR. BOGGS: Just to add from a regulatory standpoint it matters in assigning responsibility for the cleanup if the source of contamination and the type of contamination is identified. So if there is some possibility of pesticides and herbicides contamination that hasn't been exhausted by sampling conducted already, that may point to one responsible party as opposed to whether it would be another responsible party.

So this potentially affects funds in how the cleanup or restoration at the lake is handled and whether it's even regulatory driven or not. It does depend on this analysis. It may not be regulatory driven at this point based on we can't legally use the Berkeley data because

it's not legally evaluated data. It wouldn't hold up in a court of law. The EPA -- in the evaluations they do that data does hold up in a court of law. So the data is

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important to decide whether it's a regulatory cleanup or not.

MR. KERN: Are there any habitat or animal wildlife issues remaining with this that need to be checked by this sampling? That's the question I have. Any other questions? Okay.

I'd like to give our transcriptionist a brief break. I would like to let you know after the break we will have a little discussion on Lobos Creek and Nike Swale sort of like we have been having at the weekly meetings. So we hope that you will stay for that. Those two sites shouldn't take very long and then we will be ending the meeting. So why don't we take just a ten-minute break and then we will be back and will start again.

(Break taken from 9:06 p.m. to 9:25 p.m.)

MR. KERN: We are now going to be talking about discussions of remedial alternatives much like we have been doing in these weekly meetings. It was agreed we should attempt to use one of our RAB meetings to continue this process. Tonight we are going to be looking at Lobos Creek and Nike Swale where there was additional sampling done by the Presidio Trust earlier this year.

So let me turn that over to Chris. So those of you who have not been to our weekly meetings can understand, this has you really been a presentation by the Trust

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consultant, Erler & Kalinowski, about what they found at this site, discussion of the remedial alternative, and then RAB members have had the opportunity to comment and begin to ask questions regarding the sampling plan and the remedial alternative.

MS. KING: Okay. So as Doug said, today we are going to talk about the Nike Swale and Lobos Creek. I'll start first with Nike Swale because I know there are many RAB members that have been curious about the swale for a long time because it sits down the hill and downgradient from the Nike facility. It's an area where there is sensitive habitat. Some portions of the swale are believed to have wetlands in them and the Army never did any sampling of the water or sediment that emerges.

The seeps in the swale are a part of its RI, but there was always a question as to whether or not there were potential impacts of some of the contaminants that were up at the Nike facility. And what we find primarily are metals and PAHs, which are actually what George was talking about at the skeet range, the same types of chemicals. Those are the primary contaminants of the Nike facility. There are some drainages that run down into the swale and drained into the swale area.

So what we did in the field sampling plan was go out and collect samples from six different locations within

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the swale and they are here, here and here. We collected

two samples at each location. The first sample was a shallow surface sample. So it was right at the ground surface and then the second sample was a foot and a half down to see if there was contamination, if it had actually -- if there had been a lot of sedimentation or contaminants had migrated down.

Then we also wanted to collect a surface water sample and by the time -- we only had one location that had water that was adequate for sampling and that was at one of the bottom areas of the swale. So we looked for a full suite of chemicals for various organics, volatiles pesticides, PCBs, PCH metals and hydrocarbons. What we found were, again, the primary things that were detected and some of the metals were naturally occurring. And then we also found a series of PAHs.

And in comparing the chemicals to the cleanup levels, what we have here in the boxes is what we are generally presenting in the meetings. What we are presenting are the chemicals of concern and there are actually about five different PAHs that were detected above cleanup levels. We have only two basically for the PAHs. We found them at two locations SV 101 and 105, and they were detected in the sample that was from the upper part of the 0 to 6-inch sample.

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So the shallow sample or the surface sample and the PAHs were above the human cleanup levels. The cleanup levels do tend to be quite low, but the maximum contamination was, I think, about half of a million gram of benzoid pyrene. It is about a quarter lower than .065. So

there were some of the chemicals that were detected in the PAHs that also exceed some of the ecological sediment cleanup levels, which tend to be around half of a milligram to a kilogram. Then generally the metals were less than background levels.

Cadmium, nickel and zinc are at levels slightly above 04 and 100 where we have the cadmium, nickel and zinc. And the maximum cadmium was 2.9 whereas the background level is 1.7. For nickel the max number detected was 72 and the background is about 41. And lastly for zinc the max was 120 where the background is around 60. So in looking at it, the metals actually slightly exceed some of the background levels, which are based partially on human health and partially on eco-risk.

In discussing this with the Park Service and the Trust, really there are two concerns. You have volunteers that would be going in and doing restoration activities for the plants and then there's just the habitat itself out there. And the area where the PAHs are present are areas whereas far as we know there really isn't a lot of

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sensitive plant habitat and base. The PAHs are primarily driven by exposure to humans.

There was concern about the volunteers the Trust and Park Service. They were interested in better characterizing the extent of the PAHs, but right now it's possible that they are not really directly tied to the drainages. There might be a drainage going through here, but when you are actually out in the field, when you look

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at sample locations, we are not sure how extensive it is. So as part of the remedy what we would like to do is have some additional samplings to better understand the extent of the PAHs in these two areas.

And then with regards to the metals where they have been detected, because the levels are so close to background and they are in sensitive habitat areas really the Trust and Park Service discussed the idea of having no action for those because it's not like we're seeing glaring concentrations and contamination. Brian suggested that perhaps some of the soil may just be sort of general fill soil so these metals could not really be representative of what is generally found there, but of some other materials that are out there.

So the approach the Trust is looking at for this is doing some additional sampling in the area where the PAHs are and then excavating whatever is above cleanup levels

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for PAHs. And in this drainage over here, the Army -- this is part of the Nike facility, but the Army did a sample right at the outlet of that storm drain and there were some samples exceeding action levels detected. So it is very conceivable that the source is coming somehow from the Nike facility. So that's -- and I forgot, we did do one water sampling and there were no chemicals of concern identified in the water sample. I believe there were a couple metals detected such as barium, but they were below cleanup levels.

MR. BERMAN: How deep is the groundwater?

MS. KING: It's not actually groundwater.

It's merging as seeps. This was a surface water sampling, so it was unfiltered.

MR. BERMAN: Was there a groundwater sample?

MS. KING: No. The idea was to see what was emerging from the hillside into the swale itself.

MR. O'HARA: At what levels do the
relativity of metal between sample 101 and 105. Is 105
downgradient or are they at the same level?

MS. KING: In terms of elevation these are
contours and we're going downhill. I can't remember if
it's 500-foot contours. That would be a 40-foot drop
coming down.

MR. ULLENSVANG: It's not 40 feet. I think

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it's maybe 2-foot contours.

MS. KING: I don't think so.

MR. ULLENSVANG: It's not huge. The
topography, when you're out there, is going somewhat
eastward, downhill to the east.

MS. KING: It's steeper here, maybe a
20-foot drop.

MR. O'HARA: The purpose of the question was
to see if there was -- if you are going to be sampling and
I assume that you were going to be taking samples in
between 101 and 105.

MS. KING: At this time for purposes of the
FS we are saying there's need for an additional sampling.
It's not like -- and the Trust will not go out in the next
couple months before the remedy is implemented. There

would be sampling and I would presume and it would focus on looking at the drainages coming in between the two locations. Obviously the Nike facility will be addressing this particular area itself and the good news is that we have four locations. So this whole part of the swale we didn't find PAHs at all. They weren't detected. So it really does appear to be localized to this upper part of the swale.

MR. BERMAN: For a worker to actually have some kind of reaction to the PAHs don't they have to ingest

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it?

MS. KING: Yes, and let's call it all hypothetical. The way risk assessment is done, you make certain assumptions about how much soil ingestion one would have and you assume that through recreational exposure that someone would ingest one hundred million grams of soil a day. These are people down on their hands are in the dirt. They are doing restoration activities; they stop; they have a lunch break. Well, these are plant friendly people and they probably would not take a smoke break.

Anyway, they wipe their mouth, you know, that type of thing. Just from hand to mouth and working in soil, they could get soil exposure and we assume this is something that is very conservative. In the three day a week exposure scenario -- and we know I can look out there in terms of plant restoration -- that people aren't going to be at the site three days a week every single week of the year during restoration. So it is a conservative scenario. So even one option you could argue to do is a

very site specific risk assessment.

But I think the Trust's approach is to try to have consistent cleanup levels throughout and try to be conservative.

MR. BERMAN: Not all of the chemicals are volatile?

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MS. KING: Some of them are, but it's not through like ingestion. It wouldn't be a problem.

MR. BERMAN: The soil actually has to enter into -- the contaminated soil has to enter into the body?

MS. KING: The other pathway would be epidermal contact. I think it's assumed typically with risk assessment that the dirt must first stick to the skin and then a certain percentage -- I think with PAHs it's 5 percent of whatever sticks to the skin absorbs into the bloodstream. They are quite heavy and hydrophobic and absorb more than other things.

MR. ANDERSON: Where did you say the drain was, the storm drain?

MS. KING: This is a surface drainage down here and then there's another storm drain outlet up here and then there's another one up here.

MR. NELSON: That location, 101, is actually downgradient pretty much from the surface impression that goes -- if you're walking up along the fence there, there is a fence line here and a curb that runs along it and a little swale, for lack of a better term, where the asphalt is broken and the curb is missing. And there is a swale --

and it looks like water flows right out of the site there. That may be picked up over time. I know there were formerly some holes that were stored up there. That may be

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where some of this contamination is coming from. We know that specifically for that swale upstream where the water was flowing out.

MS. CHEEVER: If it were decided that some excavation was needed, would it essentially be hot spot excavation, just at those places where the samples were taken?

MS. KING: We are going to do some additional characterization before going out to excavate to verify the extent of it because -- Brian can speak better to terms of the plant species that will have to be focused in on the areas that have PAHs. Tom could answer about the plants too.

MR. ULLENSVANG: It is better to identify where the contamination is. It's possible, but not necessarily certain that you would have hit the center with the one sample. So you want to see if it's larger or a smaller area and what sort of symmetry it has. That would be through additional sampling.

MS. CHEEVER: Sounds like you would have to do quite a bit of sampling.

MR. ULLENSVANG: You would have to do quite a few samples, yes, but as you have seen on the sites where we did this it doesn't have to be 100. It could be something significantly less than that.

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MR. NELSON: A lot of the samplings were actually taken within actual drainage courses. You can see as you walk through there that water had run through there. I went out to the site and walked the locations before they were flagged on the field, before EKI went out and sampled them. And there was a person from the Park Service who helped us identify which plants to avoid. He basically said, you can sample away from the plants that were sensitive.

So that gave us good peace of mind when we looked at these results that when we went to those areas where the sensitive habitat was, it was doing well, whereas here in the upper regents there are ice plant and other species off to the west there. And I think in general those two locations are not even sensitive plants. So there would be less of an impact to go in there and do additional sampling and characterization than, say, if the contamination was widespread throughout the whole spread or restoration were to take hold.

MR. KERN: Any other questions on the Nike Swale area? I think this is really a great result. I know that for many years we requested from the Army to get some sampling and they had this model that was not based on any data that suggested that the area was clean and what do you know, there's something there. So we really appreciate the

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effort to do this.

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MS. KING: Okay. Next we have Lobos Creek.

So Lobos Creek, many of you are familiar with its location and I think it's sort of near and dear to many of the hearts of many of the RAB members. We talked about Landfill 10 and it has come up on and off, but Landfill 10 is located up here at the sort of east end of Lobos Creek. And then it runs down along the border of the Presidio and then ends out at the Baker Beach sites.

And this was a case, really kind of like Mountain Lake and the swale itself where there are no known sources that are believed to be actually in the creek itself, but rather the Army investigated Lobos Creek to see if there were any problems at the creek that would likely have originated at sources outside of the creek. In other words, they weren't doing something in the creek itself that would have caused contamination.

And so in the Lobos Creek Valley the areas that are of potential concern are you have Landfill 10 at really the head of the creek and then there were two firing ranges down the Lobos Creek Valley with protected range and targets. And Building 1750 itself is where there were some maintenance activities that had gone on. And the Army's sampling of the firing ranges showed there were no significant impacts due to lead and any other metals out

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there.

As usual, the sampling wasn't the most thorough or the most appropriate, but as far as we know there were no glaring lead problems at those firing ranges and 1750. There's really been very limited sampling done there. The

activities there are more along the lines of the motor pool vehicle maintenance activities historically.

And the last thing is Landfill 10 itself. And what we found in the Army's sampling is they did the full suite of sediment sampling and surface water sampling as part of the RI and we have all the data posted on here. The closed triangles are Army surface water samples and then the closed black squares are the Army's sediment sampling. And based on reviewing the data in the RI what we found was that the arsenic appeared to be somewhat elevated in the sediments and the lead appeared to be perhaps elevated, I think, in one of the water samples.

And so we wanted to go back and really verify whether or not there was a persistent problem with either arsenic or lead. We also looked at hexavalent chromium in the water as well because we knew we had hexavalent chromium in groundwater well that was downgradient of Landfill 10. We wanted to see if we had hexavalent chromium in the Lobos Creek water itself. And when we picked the location to sample -- we have a location that's

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immediately downstream from Landfill 10.

We have sampled water and sediment there and we have a water sample collected in an area that I think Mark and some of the other RAB members identified as having sort of an organic, sort of like a biologically derived sort of ironized, oxidized element. And at the time he thought it was isolated to that part of the creek, but since then it's been apparent -- actually Jennifer can speak to this

because she walked the creek and did the sampling -- but it is present at more areas than just this one.

We sampled downstream a little further where the Army had previously -- I think arsenic was a little elevated at 15 in the sediment and then just below -- actually just above Lincoln Boulevard and below Lincoln Boulevard basically what we found in our sampling there were no problems of arsenic at all. The arsenic level is 19 and so even that Army hit that was somewhat elevated at 15 was below the ecological based level for arsenic for lead.

The lead sediment was all below the sediment number of 81 that we were talking about earlier for the Mountain Lake number. Except in the water the cleanup level for lead is 3.2 micrograms per liter. And as many of the RAB members know that have been coming to the working groups, we have talked about lead; where we do tend to find it at

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low concentrations at other sites.

And what we have at Lobos Creek is there was an Army sample, which you can't really see, that was, I think, around 8. something micrograms just below Lincoln Boulevard. So it's a little above the 3.2. We went back and sampled in that same area and lead was now non-detectable. So you know it appeared to be sort of an intermittent problem in the same place we found lead with the orange fauk with 9.3.

So again we're at low levels of lead. It does not appear to be a persistent problem. It's not in Landfill 10 itself. I think there was one lead hit that's around 700,

that was a little elevated lead in the landfill itself, but we don't see it in the groundwater downgradient of Landfill 10. And in the water immediately downgradient, the lead is less than 3 micrograms per liter. So the source of this lead could be just from the sediments where the orange fauk was.

It's likely that there could be anaerobic conditions in that area that could result in increased mobility and solubility of the metals. It's not really necessarily known as to why the lead is slightly elevated, but it is not widespread in the water. It's not also not consistent in the water. So the Trust is proposing no further action for Lobos Creek based on the results of the

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sediment sampling.

I don't know if I mentioned hexavalent chromium. We did not detect any hexavalent chromium in the water samples.

MR. ANDERSON: The creek is a source of water for the Presidio, right?

MS. KING: Yes.

MR. ANDERSON: Do they have any ongoing analysis of the water that is comparable to this?

MS. KING: They do.

MR. NELSON: The same locations are along the streams.

MS. KING: Generally, a couple of years ago we looked at some of the data from the treatment plant specifically looking for hexavalent chromium and there

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wasn't any detected in the treatment plant, which is consistent with what we found. And a lot of detection limits are often higher for lead. Right now the action level is 15 micrograms. So our levels are below 15 and we actually had to request to get the detection limits to have the less than 3 micrograms per liter. And that is an aquatic-based standard.

MR. ANDERSON: Who is responsible for the water treatment plant analyses?

MS. REACKHOF: The Presidio Trust.

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MR. NELSON: They actually recently just sampled a number of places at the taps.

MS. REACKHOF: We have consistent -- I know -- Tracy, I was going to get something for you. I asked that a letter be put together and that will be forthcoming. The treatment plant has not had any problems with any kind of lead and they are constantly being monitored as any treatment plant would need to be. And we haven't had any problems.

MR. BERMAN: Did you gather some of this fauk and actually do an analysis to see what it was?

MR. NELSON: Yes. We sent it to a laboratory or some center in Berkeley that does some studies and they characterized it as --

JENNIFER: We spoke about this. We collected a sample. We sent it to -- I forget his name -- a familiar outside bacteria guy at UC Berkeley and he said it is a common iron thing found in streams. I spoke about it once, but I will bring it in because I don't have the

exact name.

MR. NELSON: Didn't he use the word cosmopolitan? This means it wears a feather boa and has a cigarette.

MR. BOGGS: Is mercury looked at in any of the analyses?

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MS. KING: It was looked at in the original investigations by the Army and I don't have -- actually I do have it. My recollection is that it wasn't detected because the aquatic standard for mercury is so low, if it were detected we would have to go back and sample for it. No, the only chemicals detected in water at Lobos Creek previously were arsenic, barium and lead.

MR. KERN: On the map can you tell me where 17th Avenue is? The reason I'm asking is there is a sewer crossing there. I was wondering where that might be in relation --

MR. HULTGREN: First street from the right.

MS. KING: Right here.

MR. KERN: That's a potential source of things to the creek because there is a sewer that crosses there.

MS. KING: I'm trying to remember -- we actually did the Draft Sampling Plan -- I know that is one of the things where you and Mark had input on where we moved locations around. We moved them based on your comments. I was thinking this was close to Landfill 10, but we did also place it there because of the sewer.

MR. KERN: I think those comments were mostly Mark's, so I don't know specifically how things got moved around, but I do know he made some with respect to

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the sewer crossing. I don't know which ones. I'm just wondering if there were intermittent hits in a creek, it could be based on whatever could go to the city sewer system. Things could be getting in the creek that way.

MS. KING: The good news is it's not like, you know, you see it on a consistent basis. It is not an ongoing problem with the water.

MR. KERN: Other questions about Lobos Creek data? This was another site that the Trust had done sampling and this is part of the review of all the sites where Chris's team had done the sampling. We were simply listening and going back over and reviewing it. So thank you for that review.

MS. KING: No problem.

MR. KERN: All right. I think we're ready to wrap up the meeting. Any new business? We wanted to bring, generally, to the attention of the group, some action items. We will be continuing to schedule these weekly meetings. The Fill Site 6 meetings are coming up. I think we will probably go back and review the Public Service Hospital sites when we hear back from Bruce.

Agenda items for the next meeting in December should go to Mark if you have them.

MS. CHEEVER: Committee meeting is on November 28th.

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MR. KERN: Mark would have normally announced that at his committee. The committee meeting is the fourth Tuesday night.

MS. CHEEVER: Do you have an agenda for that?

MR. KERN: We do need to produce that. Any agenda items then that come up from tonight? Any closing announcements comments by anyone?

MS. CHEEVER: Do you have documents to give us?

MR. NELSON: I actually -- there was a communication breakdown. Normally I bring it and give it to Denise and she sent them all out. What it was, was Chapters 5 and 7 of the forthcoming FS and there will be additional copies placed in the library. If anybody wants one, aside from the normal people who get them, let me know.

MS. REACKHOF: We will also be putting out emails.

MR. NELSON: I think I sent that out yesterday.

MR. KERN: As a reminder, I have the detailed cost analysis. If I don't have enough for everybody Sharron has assured me we will get more copies, so there will be plenty for all to investigate these

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streams of numbers. So see me afterwards. Anything else?

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Any other comments? Meeting adjourned. Thank you very much for coming.

(Meeting adjourned at 10:00 p.m.)

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ATTENDANCE

RAB MEMBERS

Jerry Anderson

Sam Berman

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Bob Boggs, EKI
Edward Callahan
Julie Cheever
Dennis Downing
George Ford, Presidio Trust
Julian Hultgren
Doug Kern
Andrew Lollie
Jan Monaghan
Chris Nelson, Presidio Trust
Peter O'Hara
Jim Ponton
Kate Poole
Sharron Reackhof, Presidio Trust
Patricia Ryan
Brian Ullensvang, Park Service
Joanne Chow-Winship
Tracy Wright
Gloria Yaros

PRESIDIO RESTORATION ADVISORY BOARD MEETING

TUESDAY, DECEMBER 12, 2000

LOG CABIN -- 7:15 p.m.

MR. KERN: Good evening everyone. This is the regularly scheduled meeting of the RAB and the last meeting of the year. Welcome to everyone to tonight's meeting. Welcome to the Presidio Trust, their contractors, regulatory community, National Park Service, community members of the Restoration Advisory Board, and particularly, as always, to members of the the public who are here to come out tonight and listen to cleanup plans and discussions around the Presidio. I would like to ask, are there any changes, additions, modifications to the agenda tonight? I wanted to ask, there are some folks here that may want to escape early myself not included. I want to ask on Item 7A and B, perhaps George and Chris -- what were you thinking timewise?

MR. NELSON: Very brief.

MR. FORD: Even briefer.

MR. KERN: So we can just leave it as it is. Any other comments? Okay. Good, any announcements? I am seeing none. Moving on, any committee reports? We have been working on working group issues, so we are going to have a few status updates on that. Hopefully RAB members who have been to some of those will join in on those presentations. All right. So, we're down to Item 5, the Status Update on Main Installation sites and the remedy discussions, and I get to introduce myself, and here is the presentation.

So we are going to quickly review sites we have looked at previously. I am going to quickly go through some of these sites. Some will be review and some of the sites have been discussed between our November meeting and tonight's meeting. As you may recall, we divided these into areas of "much discussion" about certain sites around the Presidio. I think that we think we've covered all those sites at least once except for one site, which is Landfill 10. There is "some discussion" for about eight of those sites. We have covered all those except for what we are going to talk about tonight, which is Graded Area 9, which we actually covered somewhat last time. And then "no discussion" sites, there were about 32 of those. And tonight we are going to do some updates, so here we go.

This is the usual map for the Fort Scott Watershed Lobos Creek Watershed, Coastal Bluffs, and Tennessee Hollow. We'll start out with the Fort Scott sites we are discussing there. And the sites we want to touch on in this overview map are Battery Howe Wagner and Landfill 4. Those were the primary issues we have talked about so far.

Battery Howe Wagner is really just for quick review tonight. These are some photos of Battery Howe Wagner. And the recommended alternative is to construct a permeable cap with soil in place and do some additional groundwater monitoring. There has been some request to further characterize and understand the size of the possible rubble and debris field. Carbon tetrachloride is an issue at the site. It is under discussion as possibly being a new site, and we may request that the carbon tetrachloride issue not be lost in the shuffle.

Landfill 4 -- this is this site here on the left, the site of the infamous dead trees. The Army called these trees raptor habitat. We call them dead trees. The size of this landfill has been reduced through some

characterization. There was some chemical waste still identified there. The remedy is clean closure. We think it is going to cost less than we originally thought it did and we are concurring with this remedy. Lobos Creek Watershed -- there are a few sites here around the Public Service Health Hospital complex, Lobos Creek, and Mountain Lake. In Lobos Creek there was sampling done and we have done quite a bit of review of some of that sampling in our working group meetings. This is another picture of Lobos Creek.

Mountain Lake -- you are aware of our meeting last month where there was quite a bit of additional lead, and you know that there is going to be additional characterization. Do we know when that is going to occur, what time frame?

MS. REACKHOF: Early January. We are reviewing the work plan right now; sometime in January or February.

MR. KERN: January or February to do some additional characterization. Landfill 8 is a site that we reviewed previously.

MR. BERMAN: Quick question, is the additional characterization for Mountain Lake just going to concentrate on the lead?

MS. REACKHOF: There is some pesticide sampling occurring also.

MR. KERN: Landfill 8 is the site of the cemetery underneath the landfill. There is a photo of the area. Some of the results of Landfill 8 were we were discussing with the Trust about possibly removing some of the uncharacterized fill material. Those discussions are continuing.

Graded Area 9 we will be talking about further tonight. Its reuse is slated for open space restoration. I think I will leave some of this discussion for what is going to happen under Item 7C.

Here is Landfill 8, a little bit out of order. We have requested a cost comparison for Landfill 8 to evaluate clean closure.

MS. REACKHOF: You are still awaiting that review? I thought we had gotten that to you.

MR. KERN: We did partially.

MS. REACKHOF: Yes, at the meeting.

MR. KERN: It is possible I made an error in that there was a cost analysis of clean closure of Landfill 8 handed out.

MR. NELSON: It wasn't for that, it was for the whole thing.

MS. REACKHOF: I will go back and check. Let me know if you don't have it.

MR. KERN: Working on Landfill 8 is obviously something we are still doing. Landfill 10 -- we have not yet discussed that site. That site is on hold. We are still awaiting some word. Here are some photos to give you a review of where that site is. It is yet to be discussed.

MR. BERMAN: Can I ask you a question about Landfill 8, again?

MR. KERN: Yes.

MR. BERMAN: Is it possible to reevaluate -- question to Chris and Sharron, is it possible to reevaluate the difference in the cost? You said it wasn't for clean closure, just rubble removal.

MS. REACKHOF: No, I can't recall the exact numbers. I can go back and gather the costs up, which we passed out at the working group meeting. I don't have them off the top of my head.

MR. BERMAN: I'm not asking for the number, but was it comparable? Was it considerably higher than the cap cost that was previously considered?

MR. NELSON: I believe so because the catch was a permeable cover as opposed to full excavation of that entire area and groundwater monitoring.

MS. REACKHOF: I don't recall. I have the numbers.

MR. BERMAN: I was not really interested in the specific numbers. Was it twice or five times --

MR. NELSON: I don't remember what the difference was.

MS. REACKHOF: I really can't recall. We can get that to you.

MR. ANDERSON: It was a lot. It was several million dollars.

MR. NELSON: Was it more than two?

MR. ANDERSON: Yes, I think so.

MS. REACKHOF: We will reissue those.

MR. KERN: I want to check in with people. Can you hear you us okay up here in the front? Did that get your question at the moment?

MR. BERMAN: Yes, it was just that I was wondering -- one of the considerations was to try to look carefully at 8 and getting it -- to really know what its size is and look at some rubble removal or closure and compare realistic number with the actual estimated cost for the permeable cover. And I mean that seemed to me a rather significant discussion item and one of the big issues was the incremental cost differential.

MR. KERN: What I believe we have is the removal of the larger material. So I think what we are working on perhaps is if, say, the rubble was this body in here, what would that cost. So that may be to be determined.

MR. BERMAN: Okay. So the discussion items we had in the committee meetings was really to compare a realistic clean closure based on a better understanding of what the size of Landfill 8 was with the amount that had been specified by the Trust for the permeable cap, but we don't have that comparison at this time.

MS. REACKHOF: No, if you recall there would be additional site characterizations taking place. All we had at that date was the usual cost,

which we gave everybody, and then if you wanted to fill it in with estimates yourselves that would be good. At this point all we have is for the entire site.

MR. KERN: Okay?

MR. BERMAN: Is that still something that is being planned?

MR. NELSON: There haven't been any further discussions on Landfill 8 as we await a discussion. When the discussions pick up again we will be looking at that issue.

MR. KERN: Landfill 10 -- there were several issues as yet to be discussed. The stability of this site, its proximity to Lobos Creek, things of that nature have yet to be discussed.

Nike Swale was a site that we did discuss between the last meeting and this meeting. Nike Swale is located in that position. We received a presentation that there were contaminants found. My recollection is they were PAHs. They were found generally on this. There is a part of this crosshatched area that is on a slope and part of it is on a flatter area. My understanding, without having been out there, from our discussions with the working group is that there were contaminants found possibly in channels that were coming down the hillside off of other channels. Is that a fair way to characterize it?

MR. NELSON: There was one particular sampling location I recall that wasn't actually a channel. That was confusing, but I think it was in other cases a channel, yes.

MR. KERN: So essentially drainage areas --

MR. NELSON: Right.

MR. KERN: -- coming off from the Nike facility. And the park service has requested additional characterization.

MR. ULLENSVANG: That's right. And for those of you who recall, the sampling at Nike Swale -- some of the sampling the Army had said there was no contamination based on modeling, but the sampling was in the bottoms of the drainages or containers where contaminants would be. And now we found some unexpected things and we don't know the extent of the lateral contamination.

MR. KERN: For those of you who were at that working group meeting have any questions about it? Essentially there were some things found. There is going to be additional discussion.

Moving on to the Coastal Bluffs, which is this area. Again, this overview map shows sites here, here, here, here, and here kind of marching down the coast, and that is a general area photo of it. We have had discussions on Fill Site 5 and Disturbed Area 3. I think prior to last meeting we had discussed Disturbed Area 3 and that is this location. Again just to review, here is what the site looks like. The fill is generally in that position. It goes down the slope quite a ways towards Baker Beach. This is a photo that, again, looks over the edge of a steeper part of the slope of Baker Beach, Disturbed Area 3, and you can barely make out some of the rubble down below. This is a side view of the steep part of Baker Beach, Disturbed Area 3, and some of the rubble in the lower portion. Again, some

of the rubble is made up of concrete, timbers, large pieces of wood, metal. And these are Calli Lillies that at the time were showing presence of water going through the site. Here is the seep that comes out of the bottom of the site that was flowing. And that is where it comes out onto the beach. So the discussions have progressed around Baker Beach, Disturbed Area 3. The current remedy is capping. There were discussions around looking for -- understanding the limits of the landfill. There were discussions around evaluating the cost feasibility of clean closure. They have been requested to gather further groundwater data in the form of a constructed shallow well down near the top of the landfill to collect groundwater. And there have been some requests to perhaps gather further soil data if that can be done easily. Since some of that discussion happened today were there any other comments people had that were at the meeting? Have I characterized it fairly? Okay.

MR. BERMAN: Is there a complication in gathering the soil for -- I mean it seems -- you sort of indicate that that was the least likely.

MR. KERN: I think what the attempt is at the moment is to not create something that is a complex sampling plan, something that would require a huge amount of review. And the seep sampling can be done relatively easily not intrusively. If you break the ground surface in the national park there are a lot of review steps and so that could complicate it if we are going to do soil sampling.

MR. BOGGS: One of the concerns is -- in one of his slides, if you look, it is steep over the hill. To get a rig down part way down that hill or that gully might involve bringing in a helicopter to lower it in and that sort of thing, which would be complicated and not easy to do. So the regulatory agencies have some minor concerns with the amount of data and would like additional data. We are working on an easy way of getting that data without bringing in a helicopter to lower it down the grade.

MR. BERMAN: There is no sort of simple scout procedure where you could take -- you know we worked with smaller samples because you don't need a lot of material actually when you finally get in the lab.

MR. BOGGS: For getting groundwater or understanding the hydrology a little better that would be complicated. It is like a seep sample that was talked about and that has been moved forward and that can be done relatively simply. So it is the more complicated things we are still trying to iron out and, yes, we will most likely be getting some more data. It is how much more can we do relatively easily.

MR. BERMAN: From the historical records is there any information that might give clues as to what might be suspicious in the soil?

MR. KERN: It is really -- I think that there are requests from the audience that they are not hearing your question. Could you repeat your question?

MR. BERMAN: The question was, in the historical records is there any information that might give some clues as to what this might be in the soil?

MR. KERN: I think the quickest answer is no. I mean, there are really some aerial photographs that show some movement of soil in the area. I haven't looked at that yet. I think, Chris, you may have some better idea, but there's not enough detail to know what is actually there. It doesn't look like stacks of drums or anything like that.

MR. NELSON: The sampling data, what limited samples were collected by the Army, shows metals to be a concern.

MS. POOLE: What is the concern of the agencies?

MR. BOGGS: Primarily that the hydrology of the site -- the proposed remedy of this site is capping the landfill and we don't know enough of how surface water will come down the little hill and flow through that material; whether it seeps into the sandy soil underneath or whether it seeps through underneath.

We had one round of seep sampling in the landfill at the very bottom, and that data is very favorable. It doesn't show any high levels of contaminants, but to be to give us extra assurance of what is really going on there on how would they cap it, how would they control all this surface water that drains down to this gully. There are engineering ways of handling some of these things, but the limited amount of groundwater seep data we have just doesn't make us feel real comfortable approving the capping alternative. We are certainly not opposed to it, but we would like more data to support that we won't be flushing contaminants out of the landfill with water.

MS. POOLE: So you want to know how deep the surface water is penetrating? Is that really your concern?

MR. BOGGS: If contaminants are getting to water and could be transported away from the site.

MR. NELSON: The site is in this valley that is basically sand at the other side, especially at the bottom. I think the concern is unless you can anchor the cap well into the earth and well cover that infiltration, you probably would, according to their opinions about this, capture all of the water that could get into the fill site.

MR. BOGGS: It's just an unknown. It's most likely it's not a problem because we have seep data which doesn't show anything. And below Fill Site 5 at the top of the landfill we have a couple monitoring wells that don't show any contaminants. So it's not like there are contaminants. We are wanting to dot the I's and cross the T's.

MR. O'HARA: If that is the case why is there concern about the mountain? The sampling that has been done -- are there any metals that have been discovered or is this just a theory?

MR. BOGGS: It's in soil, but not in groundwater -- it may be present in soil, but may not be migrating to the groundwater. If that is the case, capping is a very good alternative in that those contaminants, if you put a protective layer over them, that will work. That way no humans can come into contact with the soils. It is the safest alternative as far as human health and ecological risk.

MR. KERN: Any other questions on Baker Beach/ Disturbed Area 3? Fill site 5, I think was briefly discussed at one of our meetings. The

remedy is effectively clean closure/excavation and the RAB members are concurrent with that.

The final watershed area working group is Tennessee Hollow, and this is the overview map. These are areas of contamination. I will just quickly point out which ones are included: Landfill E, Landfill 2, Fill Site 1, Fill Site 6 affectionately known as the kangaroo fill site because of the shape. I am not sure how that got its name.

MR. BOGGS: Your picture looks like a bunny rabbit.

MR. KERN: So it can be the Energizer bunny site. We have 231, the gas station site, and 207, another gas station site, and the possible rip rap area restoration, Fill Site 1, and Landfill 2. Again, 1 and 2 are here. I will give just a quick review. You have heard the results.

This is a Fill Site 1 photo. That is where the fill site goes down there in the valley. The sampling results seem to indicate that there may be much less, or some portion less, of the landfill that's actually contaminated. It could be just fill, so this may reduce the size of the landfill that we have that would have to be removed in this case and reduce the cost.

All right. Fill Site 6 was the site that we have not previously reviewed at our full RAB meeting. The blue area is a site where we have had some extra interest. Here is the position of the rip area corridor. This is Fill Site 6, the mounded area between Hallux and Gerard. You can see the mounded area a little better there. Here is the mound. There is a single monitoring well currently right about in this position, and it's been sampled one time. So we have asked for some additional characterization, and there is discussion -- there was discussion today about possibly doing some trenching, some chemical analysis of that data, and some getting additional groundwater well data collected. So that is currently under consideration. Any questions about Fill Site 6? There was a much longer discussion than that today, but I think that's a quick synopsis.

MR. BERMAN: Quick question, is there any hint that the actual toxic -- potentially toxic volume is much smaller than the full mound itself?

MR. KERN: Well, there is no indication that any of it is toxic at the moment, and that's what the desire is, to see if there is a component that needs to be taken care of.

MR. O'HARA: Doug, what do the historical records say is the source of the debris that is in the mound? Where did it come from?

MR. KERN: Formerly there was a railroad spur that comes up where the creek was and there were warehouses on either side of this railroad spur. Those warehouses do not exist anymore, instead these buildings exist. The warehouses were in the position of where the mound is, so we suspect that the buildings when they were demolished may have been buried on site. That is just a theory. We don't have any records to say that that's what happened, but you can see some debris along the sides sticking out. You walk along the top and there is concrete rubble, so it's a possibility that the buildings were demolished and buried.

This used to be, you know, a swale. It was a depression, so it could have been buried there. So the characterization would look for metals, things that might be found there such as building debris, possibly asbestos containing materials, things of that sort.

Landfill E was our most recent discussion, that was last Tuesday. This is the site of Pop Hicks ballfield On the upgradient side, which is the picture on the left. In the winter time there is a depressed area that does retain water. And it is kind of shown in this position. This is the downgradient side. Here is the top of the landfill, and in this position is where drainage that comes out from through the landfill and out from underneath it comes out in this position.

During our meeting last Tuesday the contaminants of concern were discussed. There was an extensive presentation by the Trust's contractor who is an expert in designing landfill caps and dealing with landfills in general. It seemed evident that they were quite capable of capping the site. There was discussion around what that could possibly look like. Materials might be excavated from the top, so it would cut back that steep side of the landfill. Those materials could be put up on the top of the landfill and in that depressed area along the back side and fill that in.

There was quite a bit of discussion around the shape of the top of the cap, so it would provide drainage and then contouring soil on top of that to provide a flat surface for a ballfield. We were shown different types of materials that would be layered in this landfill to provide an impermeable surface. And there was one interesting layer that would capture landfill gas which is known to exist. Methane has been found in this landfill, and so there are issues around the design of the methane collection and how that can be taken off the site and processed either passively or actively depending on the amount of the methane.

There was a discussion around what happens if you don't design that right, the cap can balloon up and expand underneath the gas that is collecting. Obviously we don't want something like that to happen. The extent of the methane within the landfill is unknown. The contractor did mention that there seemed to be a desire, at least on his part, to have a greater understanding of what the methane content would be.

Those are some of the issues I had, but other folks were here as recently as last week, so you might want to join in.

MR. ANDERSON: What are possible passive or active means of disposing of methane?

MR. KERN: Well, they weren't discussed in detail, but the way I understand it is gas would be either on its own or through some mechanism, like a blower, be sucked out of this layer, which is hard to describe.

MR. ANDERSON: I can imagine collecting it, but aside from burning it, what other operation might there be?

MR. KERN: The passive system, the way it was described is the gases fed through a layer, perhaps of soil, where there are biodegradation occurs. And then it has not been demonstrated that there would be enough gas to flare it, which I'm not sure people would want as an operation. I am not sure we would want a flare hitting the park. Maybe it would be okay if we had like a 200-foot tall stack with big things shooting out the top.

(Laughter)

MR. BERMAN: Collect it and burn it during Christmas.

MR. KERN: Only occasional explosions.

MS. CHEEVER: Does something like methane even actually -- can it -- does it even actually dissipate or would there be methane created indefinitely?

MR. KERN: Presumably since the landfill is relatively old the materials have been decomposing for some time, and it would not be an indefinite process. It would curtail. It is just not well understood, I think, what the potential is right now for how much it is. It is really assumed, though, to not be great. There don't seem to be indications of massive amounts of gas.

MR. ULLENSVANG: I think the key is there doesn't appear to be much there now, and because the landfill is fairly old you expect there to be a decreasing amount because it does decrease over time. We wouldn't expect it to get worse than it is now, and we would expect it would be very little or none.

MS. REACKHOF: I also think based on -- the cap itself causes the situation that people weren't aware of. So it needed to be looked at when it designed this system because you don't want to aggravate a non-existent situation.

MR. BOGGS: I have been involved in a couple landfill designs where we have been involved in landfill gas collection. Operating industries landfills down in LA, in fact, have been generators because they generate so much methane they are burning it and producing electricity. The numbers I saw from the methane here and the type of materials in this landfill, you would never get close to generating enough methane to even light a cigarette. You would be lucky if you ever got that much methane.

But because small amounts can generate pressure you have to devise a way of ending it. There are some -- typically how they are vented is straight to the atmosphere. Methane is considered non-toxic and not reactive. They have passive biofilters where they pump it through like a sludgy medium that is all moist and it absorbs it and biodegrades it. So there are things you can do that are low profile and don't stick out, that kind of thing. What will most likely happen here is to move the gas through one of these systems not vented to the atmosphere.

MR. KERN: The community, then, brought up a few issues. One of the things that was discussed was the groundwater model. There was a diagram shown that seemed to indicate that groundwater was perhaps 10 feet below the bottom of the fill materials. And there was discussion around if there were creeks and springs in the area, would there possibly be some contact with groundwater. And that discussion went on for a while. We don't know that there is enough data to make that determination, or whether the materials were screened at the interface to really understand whether that's accurate.

And I should say right now that I am speaking as somebody who tried to actually make those comments, so I am not acting as a facilitator right at this moment. So anybody that was there, if you want to intervene, please feel free.

There were also geotechnical stability issues brought up. It was suggested that there is a clay layer at the bottom of the landfill that could act as a slope upon which these materials might slide perhaps in a seismic event, perhaps under some conditions that have yet to be determined. There were issues discussed with is the capping alternative compatible with new restoration concept. We talked about an emphasis on capping versus exploration of excavation or creative alternatives.

And then there was some discussion around possible other kinds of alternatives: partially excavating the landfill to make room for the restoration, moving materials around in a way that could provide some additional restoration possibilities. But those discussions are, I think, in their infancy. We just barely sort of started that last time.

When I asked the question about what additional data would be needed if the Trust were to decide to completely restore Tennessee Hollow and they wanted to know about water groundwater at the interface between fill materials and native materials, what kind of information would they need to collect.

And there was some discussion around possibly putting in additional wells and screening that at the interface. That is not actually under consideration, that was just discussion. Anything else from anybody that was there?

MS. MONAGHAN: I want all the people who want to hear about the plans for the ballpark to go back. Reconfiguring the landfill was going to raise the ballpark 5 or 6 feet above the elevation and then there would be a trench around it for water to move across. The thing I was concerned about was the fact that the ballpark goes back, and they put ground over that, and they are going to sprinkler it. And that is equal to over 100 inches a year. So there is a lot of water that is going to go back onto that landfill.

MR. KERN: Irrigation issues came up as well. Anything else?

MS. CHEEVER: Did you mean that in terms of how impermeable it was?

MS. MONGHAN: Yes, water going around the park.

MR. KERN: The cap would be designed so water could percolate down to a certain depth and then hit this impermeable layer and run down to the trenches that would surround it. And then, under the alternative, those trenches would then funnel water into the creek system.

MR. BERMAN: In principle if there is an impermeable cap, it doesn't care whether there's 10 or 100 inches falling on it, right? I mean if it's truly impermeable it's got material that presumably doesn't degrade from moisture.

MR. KERN: Yes.

MS. YAROS: Wouldn't that mean it would flow somewhere else?

MR. BERMAN: That's the idea. It goes off it of it and goes into the ditches around it.

MR. NELSON: You would not have less rainwater or what would naturally fall out of the sky. You would have more water which originated in the ground and went into Lobos Creek and then that would be flowing into the creek. That is not anticipated to be a problem. It is just I would say with 100 inches of rain a year that would significantly increase the amount of water flowing through that area. Another option is to put it in the sanitary sewer, and that's something that's been explored in the alternatives as well. There are two options for capping and diverting the water. One is the sanitary sewer and the other is to the restored stream.

MR. KERN: Okay, moving on. Just to recap then, Fill Site 6, the proposal is a soil cap, monitor the groundwater. The alternative is to characterize the contaminants, excavate, and dispose of the waste. This is the site at Tennessee Hollow in the rip area corridor.

Landfill 8 is a soil cap to contain waste in the place, monitor groundwater. The alternative is removal of rubble, covering the cemetery.

Landfill 10 is a cap. We are still going to talk about that. We have concerns with Lobos Creek's visual impacts. We are looking for greater detail around this site.

Landfill E is an impermeable caps, monitor landfill gas, monitor groundwater. The alternative remedy is excavating the landfill or some creative alternative, perhaps partial excavation, to get at the head water springs to store some natural hydrologic function to the area.

Battery Howe Wagner is a cap, contain waste in place, monitor groundwater. The alternative is characterize and excavate perhaps a smaller portion.

And again, Baker Beach/Disturbed Area 3 is a cap, contain the waste in place, monitor the groundwater. The alternative is to characterize and excavate waste.

Public Service Health Hospital sites are on hold; that is Landfill 8, 10, and Graded Area 9. We are going to hear a little more about Graded Area 9 tonight. I think we are making progress in these discussions.

Where the discussions stand right now is at the last meeting the RAB members at the meeting felt it might be an appropriate time to regroup, have some meetings to discuss where things are, evaluate our progress, and make future proposals to the Trust and Park Service regarding what we are interested in doing at this point.

Again, we want to continue to offer our appreciation to the Park Service and the Trust for providing us this opportunity to have continued input into this and answer the questions and provide us with additional detail as we make our way through this important process to the future of the Presidio. Any questions about what is going on?

MR. BERMAN: On almost all the items that were characterized as requiring "further discussion," there have been some alternatives proposed that are slightly different, sometimes quite a bit different than the original Trust proposal. And I was wondering if there is any summary document of these things other than what is on your slides that you have showed tonight?

MR. KERN: There is no summary document right now.

MR. BERMAN: It would be just an interim document, just sort of a this is a work in progress. But you have got a summary there and some conclusions, and presumably this is pretty much in agreement among the RAB members. And I was wondering whether you thought it would be worth actually having some kind of draft interim summary which sits down and puts down into writing in a general conclusion interim as it may be, offering a number of alternatives as compared to what was originally proposed by the Trust?

MR. KERN: I think processwise the RAB has discussed these particular sites for years, and now that we have been through this working group process I think what you are proposing makes sense. I think -- how we would do it is we would gather together and produce some sort of document, if that's what people feel they want to do.

I think we are still in a position where there is no feasibility study out. We don't know what the feasibility study is going to finally propose. So as we are working with the agencies they know what we are thinking. If we get too much out on paper -- I mean, there is a dynamic working with people that I think needs to be allowed its time. We need to see where people are going to be.

So I think it's important for us to get together, see where things are and evaluate what is the best way to communicate this material that is an option.

MS. POOLE: Do these discussions about additional monitoring in some sites affect the timing of the Feasibility Study?

MR. NELSON: Well, we are trying. One of the major discussion points today in our meeting was to try and keep the Feasibility Study process moving along and not lose site of the process and let things get in the way that could potentially cause us to have to catch up or get put into their own process.

So what we did was try and craft a proposal that all parties were in agreement on. That would be the fastest way of answering the questions that were needed by the regulatory agencies to help them make a decision about what we are proposing. Is it going to be something they can make a decision on, or can they not make a decision because that data doesn't tell them anything. So we tried to put together something that would be fast like going out with a backhoe and looking at Fill Site 6, going in with hand tools in Disturbed Area 3 rather than using the helicopter or drilling.

MS. REACKHOF: Something you have to think about is there is going to be quite a bit of time when we are working with the RAB and the agencies while the document is under preparation. So, when the draft comes out there will be more time for people to review the document and everybody will be on board. So this data, if we can get it ahead of time, can be incorporated. It could even be drafted out if everybody is aware of the data and we talk through it.

It can be incorporated into the final draft and, again, there is data that -- not this specific data, but data -- can also be collected at the design stage. And we are trying to identify things we need to do at this point right now to assist us with feeling comfortable with the remedies that are being put forward.

MR. KERN: Any other comments on this brief run-through? That took an hour, okay. Then while I am sort of turning this off, are there any updates from Bob and Jim?

MR. PONTON: I guess the only couple things I would like to say is I have enjoyed working with the Trust and with everyone for the last few weeks, and with Bob on these discussions regarding remedy. And I have learned a lot about the site, which is going to help me with my work.

My second announcement is that Linda is moving on to Sacramento, so I will be inheriting the Trust for part of it, for a short time, until they find another staff member to work for this site. She is taking off to be the head in DOD section, which relates to her degree, and will make her happy. So she wanted to express her thanks to all of you and wish you all good luck and good holidays. That's it.

MR. BOGGS: The only thing I will add to that is to give a brief update of what the agency has been doing, what our status is, and where we

think the whole project is going. Jim and I have been, on a weekly basis, going out to the different sites and walking out and inspecting them. Two weeks ago we went out with Mark and Doug. The week before that we went out with Brian and George. And we are getting as much input from the various parties involved and getting different aspects of their views as to what should be done with these various sites pursuant to that.

Since the last RAB we have been to Baker Beach/Disturbed Area 3, Landfill E, Fill Site 6, and El Polin Springs. One day Jim and I went by ourselves to Baker Beach 1 and 1A and got lost almost. So we have been actively involved in that. We have been reviewing documents recently such as the review and comments on the Commissary seeps, the lake analysis plan, and the Main Installation Sampling and Analysis results. The Contingency Plan is still -- there are some issues that have been brought up regarding the Contingency Plan that are going to be addressed by our agency, so that hasn't been completed yet.

At the last meeting, I think, I reported we completed our review. We did complete the review, but some issues arose that require management decisions. The other thing that is an issue for us that we are looking at is we are also going to have a meeting next week regarding background metals. We have been reviewing that metal in preparation for a meeting with the Trust on the 19th.

MR. KERN: Thank you, Bob. So in case you missed it, next Tuesday at 3:30 in the afternoon there will be a meeting at Building 1750 to discuss the background metals data. Now we are ready for 7A and that would be George for the petroleum program.

MR. FORD: Okay, thank you.

MR. NELSON: I just want to run through the quick agenda here. What we are going to be doing is we just wanted to wish everyone happy holidays. This is what we are going to talk about tonight before George jumps into the petroleum program. We will be doing the Crissy Field skeet range cleanup, Main Installation Feasibility Study, Contingency Plan, which we have pretty much covered, the groundwater monitoring program, and community relations update. So take it away George.

MR. FORD: Okay. Well, we had three things in the petroleum program and there are Commissary revisions of the corrective action plans for 1065, and 207/231, and some mini-cap sites, and tank closures.

So moving right along for the Commissary, we got bids from three contractors November 28. The bids cluster around \$450,000, which is roughly what we expected and we are planning to make an award to one of the contractors in late December. And we expect work to start on the site in most likely late January of 2001. So some things will be happening there.

The 1065 and 207/231 Corrective Action Plan Updates -- Harding/Lawson is starting their essential data compilation and review. That process will continue through the first part of next year. Our goal is to update the Building 1065 Corrective Action Plan in the first half of 2001, so that we can actually clean it up in the second half of 2001.

Officially the 207/231 Corrective Action Plan update is on the same schedule, but I think what is unfirmly well known is that because that site sits smack in the middle of the mouth of the proposed Tennessee Hollow repairing corridor and Doyle Drive goes right over it, it is a fairly complicated site. And we are expecting that actually getting to a final Corrective Action Plan may take a little bit longer.

As far as mini-cap sites -- mini-cap sites for those of you who don't know are sites where the Army cleaned up a tank or took out a pipeline or something like that, and they were not able to achieve closure of the site. They either still had some contamination above cleanup levels in the ground or maybe they found some petroleum in groundwater. In cases like that they usually did not chase the contamination out to its end. A lot of times they made a note of what they found, closed up the site and filled out one of these forms, which we call mini-caps.

The Trust is going through the mini-cap sites right now and is trying to pick out a list of relatively easy ones that we can get started with working with the Water Board and the RAB to close them out. So in the first part of 2001 we will be proposing a list of mini-cap sites to be addressed first, and you will have a chance to provide input on that.

The one other thing I am involved in is the Crissy Field closure activities, the skeet range. We have talked before about a revised draft report that is coming out this week. We actually had a draft about three or four weeks ago that we didn't like too much. So it's been revised and we are hoping the one that comes out the end of this week we will be comfortable with it, and we can send it around to everybody else to look at.

We have completed the park services NEPA review for the actual cleanup, and the permits plans and specs for a cleanup are under way. And the goal is to actually do the cleanup in the first quarter of 2001.

The other issue at Crissy Field is closure sampling. The Army committed to doing closure sampling of Fill Site 7, and there is also some additional groundwater monitoring and minor soil sampling that needs to be done in Building 900's area. We are working on a draft closure plan. We have been working with the Park Service in trying to put that together, and we expect that a closure plan will come out for the RAB and regulatory agencies to review next week.

MR. PONTON: That is Fill Site 7?

MR. FORD: Yes, for Fill Site 7 and we will also discuss the Building 900's area, which is the west end of Crissy Field. There are mostly monitoring wells in the 900's area.

MR. BOGGS: Will there be closure data reports or --

MR. FORD: No sampling plan -- I mean, what we are going to have to do in both of those areas is to try to close them the sampling out.

MR. NELSON: And I think that's the end of George.

MR. FORD: That's my story and I'm sticking to it. Thank you.

MR. KERN: Any questions for George? Has there been any recent sampling of the seeps or is that staying normal?

MR. FORD: We are overdue for sampling, and they are going to be sampled tomorrow, so we should have some results next week.

MR. NELSON: Okay, moving on to the other Presidio-wide cleanup programs. I am going to talk a little about the Feasibility Study at this point. The plan is to try and get the report out by mid-January to early February. We have currently finished our review internally. Both the Park Service and Trust have the document and we have submitted our comments to

EKI, and they are in the process of revising the text and figures. And hopefully they will get those revisions to us by the beginning of next year.

Also, to the extent possible, where we go out and collect additional data those few sites Doug had mentioned, we would like to include some of that information; not necessarily the data has been collected, but the plans and how that affects plans for remedy selection at those sites. We are still awaiting comments on the Draft Field Sampling Reports from the regulatory agencies and the RAB.

And the last remaining meeting that was discussed in the Feasibility Study Work Plan is the ARARs meeting. I would like to put forth a proposal that we perhaps roll that into the bimonthly meeting that will happen on the 16th. It is just a proposal. It is an idea where you can knock out two meetings in one day. And generally we have some attendance at that RAB meeting, and I think we should be on track by then with all the proposed remedies and all of the ARARs will be identified and agreed upon internally.

MR. BOGGS: Has that the draft section been forwarded to us?

MR. NELSON: Not yet.

MS. REACKHOF: I think that is coming very shortly. I know you needed to get it ahead of time.

MR. NELSON: If we can capture the comments before we put it out then we can hit those in the revision of the draft document. We can get the draft document to you essentially with ARARs that you agree with, and we will have extensive comments on it.

MR. BOGGS: That means -- we go through headquarters if we want to try to set up a meeting for the 16th. The sooner I get it, the better chance we have of getting it reviewed.

MR. NELSON: We are getting very close to having the text and the table that will identify the ARARs revised, so the Park Service and Trust can finally review it and agree and send it off.

Also on the Feasibility Study, other meetings have been ongoing. As Doug mentioned we have had alternative remedial discussions last week being on Landfill E the week prior, Fill Site 6, and this evening we will be following up with those last few sites that were on our list.

We also, as Doug and Bob mentioned, will have the background metals follow-up meeting, which is next Tuesday the 19th at 7:30 at Building 1750. And today we had this additional data gap discussion at Building 1750. We agreed the best course is to rapidly collect data to help the agencies make a decision about remedies, and to make the RAB and all the other stakeholders feel comfortable with the decisions.

Upcoming, once the Feasibility Study is out, we will be working on putting together a proposed plan. And following finalization of the document itself, the Feasibility Study will begin to work on the Remedial Action Plan, which will actually be the legal document that the agencies sign off on that goes into detail on how the remedies will be implementable. So that's pretty much it on the Feasibility Study. Are there any questions?

MR. BERMAN: Just a minor question, will there actually be any costs given in the Feasibility Study?

MR. NELSON: Absolutely, yes. There is a full section of appendices, which includes costs for every alternative for every site.

MS. REACKHOF: And I think everybody has been given the full packet of the preliminary data site by site and all the breakouts to date.

MR. NELSON: Anyone else? The Contingency Plan, as Bob mentioned, we should be getting comments from them after the beginning of next year. We have already read comments from the Regional Water Board and we are waiting to get all the comments together before we revise the document. We are eager to get this document out as an interim to the final in order to utilize it if the need arises at Letterman when we begin the work out there among other sites. So once we get those comments we will issue a interim final document.

On the Groundwater Monitoring Program, the consultant has prepared a Health and Safety Plan and Field Sampling Plan for the first Presidio-wide event. And I understand we have recently read comments from the Park Service on this internal draft, and we will be meeting with them to discuss the comments and get their consultant to revise the document accordingly. I would imagine that the turn around on that would probably be -- in the Field Sampling Plan and Health and Safety Plan to the agencies, I don't want to say a month.

MS. REACKHOF: January.

MR. NELSON: Probably early, mid-January, but that remains to be seen with the holidays coming up. We will keep you posted.

Last but not least this evening, we talked briefly about the Community Relation Update. We have a plan that has been finalized. It was initiated by our former community relations specialist and revised by our Consultant Kownowski. I believe the Park Services are doing it at this time, and we are hoping to get those comments soon, if we haven't already, and incorporate them to release it to the RAB and DTSC in mid-January. So we thank you for your patience on that.

We also have another announcement regarding community relations. We have hired a new community relations specialist to begin in January of next year. She is a young lady who formerly worked in Senator Boxer's office, and has been working for a public relations outfit for the last several months. So we are excited to have someone new on board to work with you and all of the agencies, et cetera.

So that concludes my portion. Does anyone have any questions on any of that?

MR. YOUNGKIN: You might announce that the Responsiveness Survey came out.

MR. NELSON: The Responsiveness Summary was just released last week. That is for the Army's Feasibility Study, the final Feasibility Study that came out in '97. So we finally compiled all of their responses and put them together in a very thick document. I believe Ms. Monaghan down there on the end has a copy. It has the characteristic green cover. That is available in the library, and I guess all the stakeholders have gotten their copies. If you have not gotten them, let us know.

MR. YOUNGKIN: Is that the final document?

MS. REACKHOF: I think what was on the cover letter, and also what I wanted to reiterate here is that obviously we have tried to work through comments on the Army's document at the same time, you know, taking into account there have been a lot of changes in what the remedies would be.

We are hoping to have incorporated a majority of your comments in our draft document as we go forward in addition to the comments in the working group meetings.

So in essence it will give you a snapshot on where we are going with some of the responses and what we would like to do. If there are additional comments based on something you felt you didn't agree with in the Responsiveness Summary, we would like to incorporate that into our draft Feasibility Study rather than reresponding to comments on the Army's document. But hopefully we have got all if it, and you will see we spent a lot of time on it to try to address all of your concerns. And again, any additional comments would be incorporated into the Feasibility Study.

MR. KERN: I think now we are prepared to move on to Item 7C, which is the Graded Area 9 and other miscellaneous sites.

MR. NELSON: Why don't we take a five-minute break.

(Break taken from 8:25 p.m. to 8:32 p.m.)

MR. NELSON: For those of you who don't know, this is Andy Safford with EKI. He is here tonight to discuss the two remaining sites we have to discuss in our remedial alternative discussions. Take it away, Andy.

MR. SAFFORD: I am not sure how these were discussed in the past, but this is Graded Area 9, and I think there is also associated with this, Building 1450 and 1451, which I think was located somewhere in this area over here.

MR. NELSON: Actually to give a little history, I believe that 1450, 1451 got lumped into this site discussion because there were other buildings that were there in that general area that were removed. I guess they were temporary structures and had been used for laboratory purposes. And I guess Saul originally had just sort of assigned those building numbers to this.

So in reality we are talking about Graded Area 9 because I think we all agree on a remedy for Building 1450, 1451. If we need to we can talk about the specifics, but the idea was there were some buildings in that area, and I guess Saul had been involved with the Army for many, many years and had expressed some concern about what the decision position of the laboratory contents were when the buildings were finally taken away.

And there was some suspicion that there were some chemicals that had been disposed of in Graded Area 9, which was originally thought to go into this area up here. And then Andy you can talk about the rest.

MR. SAFFORD: Well, basically I think the Army identified this as a site of potential concern because I think they looked at aerial photographs. And when they looked at that 1958 photo, it looked like there was filling activity there. And I think it is part of the enhanced preliminary assessment to interview people, and so on.

So the idea is it might be soil mixed with building debris that caused this building to be below the fill line. They filled it flat, and my understanding it was sort of to be a soccer field, but when you walk out there I don't think that was used as a soccer field.

So what the Army did as part of their remedial study is they did some trenching, and that is noted by these black trenches up here. And, basically, they found some minor, I think, level hits of Deoldrin, and pesticides, and things like that. And when we were reviewing the Alternate

Remedy Document, we took the topos and overlaid them to get an idea of how well the Army mapped out Graded Area 9.

And when we requested that, we got extended areas, which you will see over here. And it looks like it crossed the road and bent back over here, and the Army didn't identify those areas. So what we actually asked the Trust to do is try to characterize those areas which we identified in those white, little rectangles. You can't see that too well. Those are additional trenches.

We went out this summer and put in six more trenches and took some more soil samples. We didn't have groundwater data for Graded Area 9, but this sort of sloped downhill like this. And here these are two wells. These are two downgradient wells we have here, and then we put in a cluster of upgradient wells to try to get some type of groundwater information for this site, and basically, the results were pretty unremarkable. And I think the easiest thing to do is start out with the organics.

We lumped them into metals, organics, and organisms, everything from petroleum hydrocarbons to semi-volatile organics to DOCs. What I have here in this table -- this is a partial summary. This gives you an idea. This is a summary of chemicals that were protected, and I put it up here to sort of illustrate that essentially we found very little in terms of anything being detected. What we found was a very low concentration. And sort of consistent with how we evaluated the other site, we took these detections and compared them to the cleanup levels.

We derived -- and I think they talked about this at the RAB meeting -- the concentrations you see here all fall within the cleanup goals that are for Graded Area 9 recreational cleanup goals, and for ecological goals, basically special status sites. And all of these concentrations of organisms are actually below the cleanup goals for both protection of human health and the environment. So essentially organics fall out as chemicals of concern.

MS. REACKHOF: I just wanted to fill in a little for everybody. We went back out there this summer. I know Doug came out to the site while we were doing this. You saw some presentations on the sampling activities we did at this. You saw a lot of the trenches that were opened up. I think Chris presented some on that, and in essence what we were seeing out there was nothing more than filler dirt that was brought in to fill in an area.

So I wanted to preface that in case some of you didn't remember that we had gone out and acquired this additional data and remind you what the trenches looked like when we were out there as a background. That is why what you are seeing here is in essence what we saw out in the field also. That is just to give you a background in where we come in.

MR. SAFFORD: When we try to put percentages on it we called it 98 percent soil and maybe 2 percent building debris. Building debris are pieces of clay pipe, chunks of concrete, asphalt, things of that nature. So it was really basically, clearly imported soil, nothing much more than imported soil.

And so that leads to the metal concentrations, and I will put this up. This figure here you can't really read it, but if you study it what you find is you find these metal concentrations in the soil. And again, sort of the protocol for basically determining whether there is a problem is you basically get what predominant methodology of where the sites are, locations where beach dune sand is. And we defined -- if you remember, we defined cleanup level or background metal concentrations for the various soil types of the Serpentinite, Colma, and beach dune sand.

And, you know, it's clear that this material is really not beach dune sand. When you look at it I find pieces of Serpentinite in it. You find pieces of Colma. So it is a mixture of soil that was removed from various places on the Presidio or from off site that was brought in to fill in this outlying area. When you look at the metal concentrations and compare them to beach dune sand, many times they are below the concentrations of beach dune sand or look like the beach dune sand concentrations, correlations of nickel and, I think, zinc and chromium. Sometimes, for example, chromium is at 200 parts per million. And that is higher than what the background concentration for chromium in beach dune sand is at 215, but it is much less in concentration for chromium and naturally occurring Serpentinite, which is 1900 part per million.

So what you have to us would be clean soil that is basically imported from off site or clean soil that is consisting of beach dune mixed with Serpentinite, Colma, and so forth that make it look different than beach dune sand. But the bottom line is it is essentially clean soil. We don't see concentrations of metals, and so essentially the metals are like naturally occurring.

The organics, whatever lead is there is at trace levels and not significant. We put the wells in and did not get groundwater in those wells during the time periods we have looked at it.

So when you roll all this information together -- in summary it did not look like there is action warranted for this site. We propose that at least when we are looking at this test site. So that's it. Any questions?

MR. BERMAN: What was the level for mercury and Cadmium?

MR. SAFFORD: I could look that up. They were fairly low. What we were finding was not mercury and Cadmium, but primarily zinc.

MR. BERMAN: Were those consistent with Serpentinite particularly? I am choosing those because you wouldn't expect those to be associated with the Serpentinite.

MR. SAFFORD: No, what it looked like was basically chunks of Serpentinite in there. So that is what it looked like. It was a pretty conservative screening mechanism.

MR. BERMAN: Do you ever expect to get any groundwater?

MR. SAFFORD: Hard to know, I don't know. I have no feeling for that.

MS. REACKHOF: Obviously we will be monitoring this and trying to take some additional samples at all of these sites.

MR. SAFFORD: As I remember it was a pretty shallow soil layer at maybe 10 or 15 feet, and then you hit Serpentinite. And there is Serpentinite bedrock all the way down.

MR. NELSON: I think they screened three of the wells for Serpentinite and one of those wells is upgradient. The contact between the Colma and the Serpentinite was similar to where you found wells screened at Landfill 8. So with the rainy season coming with rain events we intend to go out and see if there's any water in those wells for purposes of evaluating any water at this site. There is the possibility there is none or at least none in the first 30 feet.

MS. REACKHOF: Questions for Andy? Are you frozen to your chairs?

MR. NELSON: One of the other things is in addition to the trenches that were collected out in this area, sort of the original part of the site in response to wondering whether or not any building material, or other debris, or contaminants were placed in this area, the Trust collected two test pits out there and found nothing but soil.

So it sort of allays some concerns that there was widespread disposal of debris and other materials in those sites. And I don't I think -- I don't recollect whether -- I guess that was -- I'm trying to see what the contamination says -- 101, so it is pretty much within the range of what you expect to find. So it didn't show anything remarkable as Andy said.

MR. KERN: So that is a run-through of all the sites that we wanted to discuss. I think one of the options that we talked about in our last meeting is the possibility that the RAB members could get together on their own and discuss a little strategy. Are there any remaining outstanding concerns people want to hear about?

One possible meeting would be next Tuesday night. For those of you that are here, would that be something that you could do? Would you like to get together and do that or would you prefer to wait until the new year? Have you had enough of this for the time being? What is your thinking?

MR. YOUNGKIN: Those of us that are around and willing could meet at a coffee shop or something and explore where we are.

MR. KERN: I think it's a good idea, and that would get us set up for the new year. And if there are sites that need some other kind of review, that would surface. Do we want to pick the usual time of 7:00 o'clock, and pick a place now, or perhaps we can send out an email?

MR. YOUNGKIN: Let's pick a time and send out an email.

MR. KERN: 7:00 o'clock, okay. Any other new business at this time? So a review of our action items, there looks like there is going to be a lot of documents upcoming. I know I owe Chris some comments on the Contingency Plan and there are several other documents coming out. Those of you who want to look at the Responsiveness Summary please do. There was obviously a lot of work that went into responding to the 51 comments. And all the organizational comments are also included in there, so it's a good document to have.

Any agenda items on people's minds for next January's meeting? As usual we can get those to Mark and Mark can talk to Chris.

MR. NELSON: Do I understand from that recent resounding interest in having a meeting coming up that the 19th and 26th there will be no meeting?

MR. KERN: I think the 29th, we are going to getting together.

MR. NELSON: Is that enteral? So that's an internal meeting?

MR. YOUNGKING: Yes.

MR. KERN: And the 26th is a no.

MR. NELSON: My suggestion was if there was going to be a committee meeting, to have it next week instead of the 26th, but you guys can do your own thing.

MR. BERMAN: Are you asking for agenda items for the next month's RAB meeting?

MR. KERN: Yes.

MR. BERMAN: I'm wondering if we can get a sample of the Feasibility Study by then, a sample presentation.

MR. NELSON: Of the Feasibility Study?

MR. BERMAN: Would that be premature?

MR. NELSON: We pretty much talked about -- in these discussions we talked about the proposed remedies in the Feasibility Study that is coming out, and that is where the original matrixes that were used to compare the "some-discussion," "less-discussion," "no-discussion" sites is. That is pretty much a preview of the things you are missing.

Obviously if you haven't looked at the sampling report for the things that were sampled this year. That is available to look at. That talks about results and how those have an impact on the remedies. You have seen the maps and you have seen some of the advanced chapters, which don't go into site specific detail, and then a lot of the costs have been issued.

So you have sort of the skeleton of it. What you are missing is the chemical screening, and identification of potential chemicals of concerns, and the screening of the chemicals of concern, and how those become chemicals of concern at each site, and how those drive the remedies and the ARARs, which is the legal part, and then remedy the, detailed analysis.

And the compared analysis of the alternatives is where each remedy is proposed. And the way it is laid out in the report, it is not specific remedies for each site. It is a range of alternatives that are put through the screening process and retained and compared against all the different criteria. There are nine criteria that are used, and so that's really still under development.

And what we have been doing is taking these meetings and RAB comments into account, and we are revising the document. And so you will have an opportunity to comment on that. And I believe we are going to give about 60 days of comment on the draft before it goes final, and then it goes up for the public review.

MR. BOGGS: I think what may be addressed -- I don't know if you are planning on a public meeting sometime when the Feasibility Study is released. It might be good for the public and everybody involved to get an overview briefing of the Feasibility Study to just kind of bring people into it

MS. REACKHOF: We will be holding the workshops to bring in the public participation.

MR. BOGGS: And maybe ARARs might be a good presentation at that time to discuss publicly. This might be a chance to introduce the public to ARARs and get their input prior to the public meeting.

MS. REACKHOF: We were mentioning the ARARs. We won't be working with you guys on it until -- you won't be ready to present the ARARs at a meeting I don't think until we have had an opportunity to meet with regulatory agencies and clean it up. And then when -- rather than, you know, have all of this out there let's talk and have a basic overview on it similar to how we have handled the other areas of the Feasibility Study. That would be more beneficial.

MR. NELSON: I think also one of the things we can talk about is the plans for gathering that additional data, the stuff that is put forth for those other sites: Landfill E and Fill Site 6 and Baker Beach/Disturbed Area 3. So that can be a brief presentation on what is planned and how we hope to help the regulators and the RAB to feel more comfortable about the proposed remedies, or perhaps we will change what is necessary as far as preferred remedies.

MS. REACKHOF: Also, Doug, you guys might have had an opportunity to meet by then, and if you want to come back with something that the full RAB has looked at, this might be a good time for that kind of presentation also.

MR. KERN: Yes, I think after next Tuesday we might have some additional agenda items and feedback. We will see.

MR. NELSON: Let us know by the first of the year, so we can get the agenda together.

MR. KERN: All right. Any announcements before we close? Well, happy holidays to everyone, safe travels if you are leaving town, and best wishes for a Happy New Year. We will see you hopefully next Tuesday, if not next year.

(Meeting adjourned at 8:54 p.m.)

ATTENDANCE

RAB MEMBERS

Jerry Anderson
Sam Berman
Bob Boggs, EKI
Edward Callahan
Julie Cheever
Dennis Downing
George Ford, Presidio
Trust
Matt Fottler
Julian Hultgren
Doug Kern
Andrew Lolli
Jan Monaghan
Chris Nelson, Presidio
Trust

Peter O'Hara
Jim Ponton
Kate Poole
Sharron Reackhof,
Presidio Trust
Patricia Ryan
Andy Safford, EKI
Brian Ullensvang, Park
Service
Joanne Chow-Winship
Tracy Wright
Gloria Yaros
Mark Youngkin

